

UNCLASSIFIED

AD NUMBER

**AD824581**

NEW LIMITATION CHANGE

TO

**Approved for public release, distribution  
unlimited**

FROM

**Distribution authorized to U.S. Gov't.  
agencies and their contractors;  
Administrative/Operational Use; Novr 1967.  
Other requests shall be referred to  
Central Intelligence Agency, Office of  
Central Reference, 2430 E. Street, NW,  
Washington, DC 20505.**

AUTHORITY

**CIA ltr, 7 Sep 2004**

THIS PAGE IS UNCLASSIFIED

FOR OFFICIAL USE ONLY

AD824581



CONSOLIDATED  
TRANSLATION  
SURVEY

Number 119

Through 30 November 1967

CENTRAL INTELLIGENCE AGENCY  
Washington D. C. 20505

FOR OFFICIAL USE ONLY

CONSOLIDATED TRANSLATION SURVEY

FOR NOVEMBER 1967

TABLE OF CONTENTS

	<u>Page</u>
Preface	iii
Requests for Copies	iv
USSR	
Economic	1
Political	9
Military	10
Geographic	10
Sociological	10
Biographic	12
Eastern Europe	
Economic	12
Political	16
Military	16
Sociological	17
Western Europe	
Economic	18
Political	20
Military	21
Geographic	21
Sociological	21
Africa	
Economic	22
Political	22
Military	22
Sociological	22
Middle East	
Economic	23
Political	23
Geographic	24
Sociological	24
Far East	
Economic	25
Political	26
Military	28
Sociological	28

	<u>Page</u>
<b>Latin America</b>	
Economic	28
Political	29
Military	29
Geographic	29
Sociological	29
<b>Scientific</b>	
Aeronautics	30
Agriculture	30
Astronomy & Astrophysics	31
Atmospheric Sciences	32
Biological & Medical Sciences	33
Chemistry	49
Earth Sciences & Oceanography	51
Electronics & Electrical Engineering	56
Energy Conversion (Non-Propulsive)	59
Materials	59
Mathematical Sciences	68
Mechanical, Industrial, Civil & Marine Engineering	69
Methods & Equipment	76
Missile Technology	76
Navigation, Communications, Detection & Countermeasures	77
Nuclear Science & Technology	78
Physics	81
Propulsion & Fuels	86
Space Technology	87
Miscellaneous	87
Information on Cover-To-Cover Translations	88
Index to Authors	170

## CONSOLIDATED TRANSLATION SURVEY

### PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (\*), and when available, a project-control or "in-Process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

REQUESTS FOR COPIES

Requests for copies of published projects should be made direct to the designated producing organization.

Addresses of Producers to Follow:

ACIC - Aeronautical Chart and Information Center  
(see CFSTI)

ACSI - (see DIA)

AEC - Atomic Energy Commission (see CFSTI)

AF

Department of Air Force  
Assistant Chief of Staff, Intelligence  
ATTN: AFCIN-3D  
Washington, D. C.

AFCRL Res Lib

Air Force Cambridge Research Laboratories  
Research Library  
Office of Aerospace Research  
United States Air Force  
Laurence G. Hanscom Field  
Bedford, Massachusetts  
ATTN: CRMXLR

AGU

American Geophysical Union  
1515 Massachusetts Avenue, NW  
Washington, D. C. 20005

AIP

American Institute of Physics  
335 East 45th Street  
New York, New York 10017

APL/JHU

The Johns Hopkins University  
Applied Physics Laboratory  
8621 Georgia Avenue  
Silver Spring, Maryland 20910

BISI

British Iron and Steel Industry Translation Service  
The Iron and Steel Institute  
4 Grosvenor Gardens  
London, S.W. 1, England

CB

Consultants Bureau Enterprises, Incorporated  
227 West 17th Street  
New York, New York 10011

CFSTI

Clearinghouse for Federal Scientific and  
Technical Information (Formerly Office of  
Technical Services)  
Port Royal and Braddock Roads  
Springfield, Virginia 22151

CTT

Columbia Technical Translations  
5 Vermont Avenue  
White Plains, New York 10600

DIA

Defense Intelligence Agency  
Washington, D. C. 20301

Emmanuel Coll Res Lang Ctr

Emmanuel College Research Language Center  
The Fenway  
Boston, Massachusetts

FP Inc.

The Faraday Press, Incorporated  
84 Fifth Avenue  
New York, New York 10011

FTD - Foreign Technology Division (see AF)

HB

Henry Bratcher Technical Translations  
P.O. Box 157  
Altadena, California 91001

HEW - See NIH

IEEE

Institute of Electrical and Electronics Engineers  
275 Madison Avenue  
New York, New York 10016

Department of Interior

Department of Interior, Room 8015  
Branch of Foreign Fisheries (Translations)  
Division of International Affairs  
Bureau of Commercial Fisheries  
Washington, D. C. 20240

JPRS

U. S. Department of Commerce  
Clearinghouse for Federal Scientific  
and Technical Information  
Joint Publications Research Service  
Building Tempo E,  
East Adams Drive, 4th & 6th Streets, SW  
Washington, D. C. 20443

NASA

National Aeronautics and Space Administration  
1512 H Street, NW  
Washington, D. C. 20546

Navy

Department of Navy  
Office of Naval Intelligence  
Washington, D. C.

NIC

Naval Intelligence Command  
Naval Intelligence Command Headquarters  
NIC-15  
Bethesda, Maryland 20014

NIH

Circulation Unit  
Readers Services Section  
Library Branch, DRS  
National Institutes of Health  
Building 10, Room 5N118  
Bethesda, Maryland 20014

NLL

National Lending Library  
For Science & Technology  
Boston Spa, Yorkshire, England

NOO

U. S. Naval Oceanographic Office  
Washington, D. C. 20390

NRL

U. S. Naval Research Laboratory  
Washington, D. C. 20390

NSTIC

Naval Sci and Tech Intell Ctr

Ministry of Defence  
Room 102, Station Square House  
St. Mary Cray, Orpington, Kent  
England

ONI - Office of Naval Intelligence (see Navy)

ORNL - Oak Ridge National Laboratory (see AEC)

OSA

Optical Society of America, Incorporated  
33 University Road  
Cambridge, Massachusetts 02138

Plenum Press

Plenum Press, Incorporated  
227 West 17th Street  
New York, New York 10011

RAE - (see TIL, Ministry of Aviation)

Sci & Tech Info Facility

Scientific & Technical Information Facility  
National Aeronautics and Space Administration  
Goddard Space Flight Center  
Contract No NAS-5-12487

Scripta Technica, Inc

Scripta Technica, Incorporated  
1000 Vermont Avenue, NW  
Washington, D. C. 20005

TIL - Technical Information Library

Ministry of Aviation  
TIL, 1 (b)  
Leysdown Road  
Nottingham  
London, S.E. 9, England

UCRL

University of California  
Lawrence Radiation Laboratory  
Livermore, California  
(see AEC)

Economic

From the Report of N. P. Bilinkin, by N. P. Bilinkin  
23 pp.  
RUSSIAN, per, Arkhitektura, January 1967, pp 10-26  
DIA LN 214-66

New Forms and Regulations for Urban Construction,  
by V. Shkvarikov and B. Luk'yanov, 14 pp.  
RUSSIAN, per, Arkhitektura SSSR, No 2, 1967,  
pp 25-28  
DIA LN 338-67

Urbanization -- Communications -- The Microdistrict,  
by L. Kogan, 11 pp.  
RUSSIAN, per, Arkhitektura SSSR, No 4, April 1967,  
pp 39-44  
DIA LN 448-67

Progress Report by Baku Oil Workers, by A.  
Gol'denberg, 6 pp.  
RUSSIAN, per, Bakinskiy Rabochiy, 15 Sep 1967,  
p 2.  
JPRS 43095

Credit and Financial Relations Under the New  
Conditions, by N. Posdnyakov, 8 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967,  
pp 18-22.  
JPRS 42732

The Role of Credit in Increasing the Effectiveness  
of Social Production, 11 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967, pp  
3-9.  
JPRS 42732

The Role of Commodity-Monetary Relations in  
the Economy, by N. Smirnov, 13 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967,  
pp 10-17.  
JPRS 42732

Questions Pertaining to Monetary Circulation,  
by I. Chernov, 9 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967,  
pp 23-27.  
JPRS 42732

Long-Term Agricultural Credit in the USSR, by  
I. Levchuk, 13 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967,  
pp 28-36.  
JPRS 42732

Interbranch Relations in the Socialist Economy,  
by A. Yefimov, 8 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 31,  
Aug 1967, pp 42-43.  
JPRS 42738

Results and Plans of Agricultural Land Reclamation  
in the Estonian SSR, by Kh. Myannik, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 32, Aug  
1967, p. 35.  
JPRS 42647

Economic Expediency--A Powerful Stimulus, by  
I. Kurtinin, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 34,  
Aug 1967, p. 10.  
JPRS 42865

Construction of Production Facilities in the  
Chemical Industry, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 34,  
Aug 1967, p. 21.  
JPRS 42763

Sample Regulations Governing Payment of Wages  
to Kolkhoz Workers, 20 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 34,  
Aug 1967, pp 32-35.  
JPRS 42798

Achievements of Petroleum Industry in 1967,  
by V. Shashin, 10 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 35,  
Aug 1967, pp 4-5.  
JPRS 42935

Progress in Bukovina Region of Ukraine under  
Soviet Rule, by A. Grigorenko, 8 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 35,  
Aug 1967, pp 6-7.  
JPRS 42867

State Certification of 'Tizpribor' Manufactured  
Goods, by K. Tyutnev, 5 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 35,  
Aug 1967, p. 12.  
JPRS 42865

Report on Bottlenecks in Economic Reform,  
by P. Startsev, 5 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 35,  
Aug 1967, p. 13.  
JPRS 42878

USSR  
Economic (Contd)

Results of Belorussian Reforms Discussed, 11 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 35,  
Aug 1967, pp 20-21.  
JPRS 42878

Azerbaijhan Industrial Development Outlined,  
by E. Alikhanov, 5 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 35,  
Aug 1967, p. 22.  
JPRS 42878

Commerce and the New Management Principles,  
by N. Ilyakov, 5pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 35,  
Aug 1967, p 29.  
JPRS 42973

Latvian Republic's Experience With Five-Day  
Work Week, by N. Kovalenko, 9 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 35,  
Aug 1967, pp 27-28.  
JPRS 42806

Benefits of Converting Sovkhozes to Full Cost  
Accounting Discussed, 7 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 36,  
Sep 1967, p 3.  
JPRS 42975

Communications in the Service of the National  
Economy, by K. Sergeychuk, 11 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 36,  
Sep 1967, pp 4,5.  
JPRS 42976

Plans for Rural Gas Development Announced,  
by Ye. Korshunov, 7 pp.  
RUSSIAN, np, Ekonomicheskaya gazeta, No 36,  
Sept 1967, p 15.  
JPRS 42969

Recommendations Given for Improving Relation-  
ships between Kolkhozes and "Sel'khostekhnika",  
by V. Skrypnik, 7 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 36,  
Sep 1967, pp 42-43.  
JPRS 42975

August 1967 Industrial Production Figures, 7  
pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, p 3.  
JPRS 42838

USSR  
Economic (Contd)

RSFSR Gosplan Official Reports Progress Under  
New System, by Ya. Chadayev, 6 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, p 12.  
JPRS 42838

Kiev Enterprise Directors Report on Planning,  
17 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, pp 13-15.  
JPRS 42838

Textile Workers are Operating According to  
the New Economic System, by M. Pevzner, 6 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 37,  
Sept 1967, p. 16.  
JPRS 42830

Packaging of Foods, by A. Artamonov and F.  
Rezinikov, 5 pp.  
RUSSIAN, np, Ekonomicheskaya Gazeta, No 37,  
Sept 1967, p. 20.  
JPRS 42830

Brief Survey of Economic Development in  
Turkmenia, by B. Ovezov, 6 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, p 22.  
JPRS 42838

Turkmen SSR Development Chronicled, by Beki  
Seytakov, 7 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, pp 23-25.  
JPRS 42838

Intraplant Economic Accounting Under the  
Management Reform, 13 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 37,  
Sep 67, pp 27-29.  
JPRS 42817

Moscow Clothing Exhibit a Success, by V. Dykin,  
6 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 37,  
Sep 1967, p 40.  
JPRS 42838

Felicitous Relationships Between Hungary and  
USSR in Council of Mutual Economic Assistance, by  
L. Papp, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 37,  
Sep 1967, p 41.  
JPRS 43106

USSR  
Economic (Contd)

Head of Soviet Oil Exports Reports on Penetration of World Market, by Ye. Gurov, 5 pp.  
RUSSIAN, per, Ekonomicheskaya gazeta, No 39, Sep 1967, p 44.  
JPRS 43106

Labor Productivity in Coal Industry of Ukraine, by N. Mogilevskiy, F. Grechishkin, 9 pp.  
RUSSIAN, per, Ekonomika Sovetskoy Ukrayny, No 8, Aug 1967, pp 55-61.  
JPRS 43095

Construction of Moscow, by V. Promyslov, 11 pp.  
RUSSIAN, per, Ekonomika Stroitel'stva, November 1966 pp 1-8  
DIA LN 105-67

Operation of Belorussian Construction Trust, by I. Yurkov and R. Ryter, 5 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 8, Aug 1967, pp 15-17.  
JPRS 42923

Scientific Labor Organization at Belorussian Construction Sites, by L. Pshonik, 6 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 8, Aug 1967, pp 18-21.  
JPRS 42923

Belorussia Introduces Wage Incentives for Construction Quality, by I. Korneyeva and P. Shwartsman, 7 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 8, Aug 1967, pp 22-26.  
JPRS 42923

Economic Conference on Construction Costs, 9 pp.  
RUSSIAN, per, Ekonomika stroitel'stva, No 8, Aug 1967, pp 53-57.  
JPRS 42923

Station Which Gasifies Coal Underground is Improving in Efficiency, by A. Zhirnyy, G. Zybalova, 5 pp.  
RUSSIAN, per, Ekonomika i zhizn, No 6, 1967, pp 63-65.  
JPRS 42733

Improving Planning and Accounting at Power Stations, by Ye. I. Borisov and S. Ye. Shitaman, 9 pp.  
RUSSIAN, per, Elektricheskiye stantsii, No 9, Sept 1967, pp 2-5.  
JPRS 42969

USSR  
Economic (Contd)

Further Development of Ferrous Metallurgy Projected, by P. Shirayev, 6 pp.  
RUSSIAN, per, Ekonomicheskaya Gazeta, No 38, 1967, p 17.  
JPRS 43104

Five-Day Work Week for Perm Electric Networks, by V. I. Shmarovoz, 5 pp.  
RUSSIAN, per, Energetik, No 8, 1967, pp 12-13.  
JPRS 42848

Agencies of Material-Technical Supply Under the Conditions of the New System of Planning and Of Economic Incentives, by V. Pavlov, 7 pp.  
RUSSIAN, per, Finansy SSSR, No 8, Aug 1967, pp 16-20.  
JPRS 42922

Certain Problems Pertaining to the Practice of Economic Incentives, by V. Kolesnikov, 7 pp.  
RUSSIAN, per, Finansy SSSR, No 8, Aug 1967, pp 47-51.  
JPRS 42922

Proposed Changes in Procedure of Financing Soviet Construction, by S. Movshovich, 8 pp.  
RUSSIAN, per, Finansy SSSR, No 8, Aug 1967, pp 57-61.  
JPRS 42922

News Items From the Board of the Ministry of Finance, USSR, 6 pp.  
RUSSIAN, per, Finansy SSSR, No 8, Aug 1967, pp 92-94.  
JPRS 42922

Growth Rate and Production Potential of Fish Population, by V. N. Greze.  
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol I, No 2, 1965, pp 35-42.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Tunas and the Tuna Fishery in the Atlantic Ocean, by V. Zharov, Yu. Zherebenkov.  
RUSSIAN, per, Kaliningradskoe Knishnoe Izdatel'stvo, 1964, 182 pp.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Refrigeration Industry of the USSR in 1959-1965, by I. M. Geller  
RUSSIAN, per, Kholodil'naya Tekhnika, September 1966 pp 1-6  
DIA LN 104-67

USSR  
Economic (Contd)

New Tasks Confronting the Refrigeration Industry,  
by V. Ya. Kokorev  
RUSSIAN, per, Kholodil'naya Tekhnika, September 1966  
pp 7-9  
DIA LN 104-67

Cold Storage and Distribution Plant in Volgograd,  
by N. P. Konovalov  
RUSSIAN, per, Kholodil'naya Tekhnika, September 1966  
pp 43-45  
DIA LN 104-67

Enclosed Artificial Ice Skating Rings, by V. F.  
Kostrikov and A. P. Erik  
RUSSIAN, per, Kholodil'naya Tekhnika, September 1966  
pp 45-47  
DIA LN 104-67

Review of Production Figures for Household  
Refrigerators, by Cand Tech Sc B. S. Veynberg,  
8 pp.  
RUSSIAN, per, Kholodil'naya tekhnika, No 8,  
Aug 1967, pp 1-5.  
JPRS 42880

The Whaling Industry of the Soviet Union  
RUSSIAN, bk, Kitoboinyi Promysel Sovetskogo Soyuza  
1955  
\*CPSTI TT 67-51444

Footwear Industry Progress Outlined, by P. I.  
Levenko and N. S. Obukhov, 9 pp.  
RUSSIAN, per, Kosheverno-obyvnyaya promyshlen-  
nost', No 8, Aug 1967, pp 1-5.  
JPRS 42984

Economics of Scientific Research, by T.  
Khachaturov, 7 pp.  
RUSSIAN, per, Literaturnaya Gazeta, No 35,  
30 Aug 1967, p. 10.  
JPRS 42878

Report of the Chairman of the State Committee  
On Material-Technical Supply, V. E. Dymshits,  
30 pp.  
RUSSIAN, per, Material'no-Tekhnicheskaya Sna-  
sheniye, No 7, Jul 1967, pp 2-21.  
JPRS 42814

Minister Rudnev Cites Advantages to Enterprises  
Converted to Economic Accountability, by K. N.  
Rudnev, 5 pp.  
RUSSIAN, per, Material'no-Tekhnicheskaya  
Sna-sheniye, No 7, Jul 1967, pp 38-41.  
JPRS 42814

USSR  
Economic (Contd)

Administration Chief Mikhlin Sums Up Record of  
Material-Technical Supply in North Caucasus,  
by M. Ye. Mikhlin, 5 pp.  
RUSSIAN, per, Material'no-Tekhnicheskaya  
Sna-sheniye, No 7, Jul 1967, pp 41-44.  
JPRS 42814

Administration Chief Monin Condemns Late Fund  
Allocations in Nizhne-Volzhskiy Rayon, by A.  
Ya Monin, 5 pp.  
RUSSIAN, per, Material'no-Tekhnicheskaya  
Sna-sheniye, No 7, Jul 1967, pp 62-64.  
JPRS 42814

Results of Cod Tagging in the Labrador and  
North Newfoundland Bank Regions, 1960-1964,  
by A. I. Postolakiy.  
RUSSIAN, per, Materialy Sessii Uchenogo Soveta  
PINRO po Rezul'tatam Issledovaniia v 1964 g.  
No 6, 1966, pp 80-90.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Economic Reform in Meat and Dairy Industry, by  
M. Barbashin, 9 pp.  
RUSSIAN, per, Miasnaya Industriya SSSR, No 8,  
Aug 1967, pp 1-4.  
JPRS 42905

Soviet Far East (Dal'niy Vostok) Economic and  
Geographic Characteristics, 77 pp.  
RUSSIAN, per, Mysl', 1966, pp 47-51, 222-257,  
308-318, 325-431, 440-441, 462-469  
DIA LN 361-67

Some Results of Conversion of Kazakh Enter-  
prises to New Economic System, by V. Kalanta-  
yevskiy, 10 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakh-  
stana, No 7, Jul 1967, pp 16-21.  
JPRS 42973

Industry and the New Planning Conditions, by  
L. Petrov, 7 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana,  
No 7, July 1967, pp 30-38.  
JPRS 42967

Role of Enterprise Manager Under Economic  
Reform, by A. Platayev, 7 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakh-  
stana, No 7, Jul 1967, pp 76-79.  
JPRS 42973

USSR  
Economic (Contd)

Sources and Use of Kazakhstan's Fixed Commercial Assets, by M. Ivanov, 6 pp.  
RUSSIAN, per, Narodnoye Khozyaistvo Kazakhstana, No 7, Jul 1967, pp 86-88.  
JPRS 42973

Research Lag in Chemical Industry, by V. Bushuyev, 7 pp.  
RUSSIAN, np, Pravda, 24 Aug 1967, p. 3.  
JPRS 42862

Progress of Soviet Coal Mining, by N. M. Khodosovtsev, 5 pp.  
RUSSIAN, per, Pravda Ukrayiny, 27 Aug 1967, p 1.  
JPRS 42733

Important Tasks Confronting the Builders of Industrial Enterprises During the Anniversary Year of 1967, by A. A. Etmekdzhiyan, 10 pp.  
RUSSIAN, per, Promyshlennoye Stroitel'stvo, February 1967, pp 2-5  
DIA LN 297-67

Areas of Concentration of Ferrous Metallurgy, 5 pp.  
RUSSIAN, np, Rabochaya Gazeta, 24 Aug 1967, p. 3.  
JPRS 42971

Predicting the productiveness of Trawling in the Barents Sea, by K. G. Konstantinov and A. I. Mukhin.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 41, No 2, 1965, pp 14-17.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Ways for Raising the Output of Pond Fish, by D. Makeyev.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 41, No 2, 1965, pp 20-21.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Profitability of Replacing Crews of Fishing Vessels at Sea, by N. S. Goryunov.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 1, 1966, pp 73-75.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

A Reasonable Approach to Planning, by G. Chernyavskii  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 1, 1966, pp 80-81.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Our Suggestions for Improving the BMRT, by V. E. Kovylin.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 2, 1966, pp 36-39.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Something New in the System of Incentives.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 2, 1966, p. 48.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Application of Dimension Analysis for Determining Absolute Trawl Efficiency, by V. A. Jonas.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 2, 1966, pp 46-48.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Operations of the SRTR-9069 (Medium Refrigerated Side Trawler) in North Sea Silver Hake and Shark Fisheries, by V. Teplyakov and N. Ivanov.  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42, No 2, 1966, pp 49-50.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Economic Budgeting and Costing for Fishing Vessels, by Yu. L. Korotkov  
RUSSIAN, per, Rybnoye Khozyaistvo, Vol 42 No 2, 1966, pp 78-80.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Bases for Increased Profits of Fishery Kolkhozes in the Azov and Black Sea Areas, by G. Chernyavskiy.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 83-86.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Improving Labor Protection and Safety Techniques.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, p. 91.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Harvesting Boat (Launch) for Collecting Anuf'stia Algae, by G. N. Magdeburov  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 3, 1966, pp 37-39.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Applying Piece-Rate Bonus System of Payment for Work on Refrigerated Fish Carrier Bases, by V. Burmeyster.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 3, 1966, pp 74-76.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Principles of Planning and Prices of Fish Produce, by P. Neamashnyi.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 3, 1966, pp 77-78.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The (Yearly) Distribution of Capital Investment in the Construction and Reconstruction of Enterprises, by V. E. Fedyaev  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 5, 1966, pp 71-72.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

Improving the utilization of the Fixed Assets of the Northern Basin Trawling Fleet, by V. N. Akimov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 5, 1966, pp 73-74.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Deep Water Two-Boat Fishing, by I. P. Vorob'ev.  
RUSSIAN, per, Rybnoe Khoz, Vol 42, No 11, 1966, pp. 46-48.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Fish Stuffing.  
RUSSIAN, per, Rybnoe Khoz, Vol 42, No 11, 1966, pp. 63.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Correct Determination of the Return on Fixed Productive Assets (Of Fishing Harbors) by I. M. Gol'man  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 11, 1966, pp 74-75.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Improvement of the Methods of Costing of the Operations of the Fishing Fleet, by A. Igolkin  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 11, 1966, pp 78-79.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Norms for the Expenditure of Ammonia and Calcium Chloride Salts in Ships' Refrigeration Plant, by E. G. Chernyakova and I. G. Kolesnik.  
RUSSIAN, per, Rybnoe Khoz, Vol 43, No 12, 1966, pp 37-38.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Factory Ship.  
RUSSIAN, per, Rybnoe Khoz, Vol 42, No 12, 1966, pp. 56.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

A New Salting Technique Introduced, by A. Iva [illegible]. RUSSIAN, per, Rybnoe Khoz, Vol 42, No 12, 1966, pp. 67. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Fish Smoking Conveyor Line. RUSSIAN, per, Rybnoe Khoz, Vol 42, No 12, 1966, pp. 71. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Reserves in the Exploitation of the Refrigerated Fleet in the Far East, by V. S. Egorov and N. I. Savin. RUSSIAN, per, Rybnoe Khozyaystvo, No 12, Dec 1966, pp 72-73. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

New Production. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 12, 1966, p. 77. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Improved Desalination Plant for Vessels of the Fishing Industry, by V. N. Nilov. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 5, 1967, pp 27-28. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Possible Use of Knotless Knitted Net Elements in Trawl Fishing, by I. I. Sakhno and V. I. Tolmachev. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 5, 1967, pp 35-38. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Riches of the Far Eastern Seas for the Soviet People, by I. V. Kizievetter. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 2-4. \*Dept of Interior Fish and Wildlife Service BCF Bureau of Foreign Fisheries

USSR  
Economic (Contd)

New Products From the Atlantic Sardinops, by L. A. Zakharova. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 49-51. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

The Economic Maintenance of the Amortization Norms of the Fishing Fleet, by B. N. Akimov. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 65-66. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Let Us Improve the Economic Operations in the "Vostokrybkhodflot" [The Eastern Refrigerated Fishing Fleet] Administration, by V. S. Egorov and N. I. Savin. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 67-69. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Determination of the Losses Resulting from Substandard Products, by K. Keulimzhev. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 70-71. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

The Murmansk Trawling Fleet Prepares for the Changeover to the New Operating Conditions, by V. Maksheev. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 72-73. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Urgent Problems in State Pond Fishing, by V. A. Murin. RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 74-75. \*Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

USSR  
Economic (Contd)

The Freedom of Rational Utilization of the Living Resources of the High Seas is a New Progressive Standard of International Law, by V. A. Chichvarin.  
RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 85-87.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Results of a Public Review-Contest on the Conditions in Labor Safety, by B. Benger and A. Shvydkov.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, p 88.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Forecasting Areas of Fish Concentrations in the Shelf Waters of the North-West Africa.  
RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 13-14.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Problem of Utilization of Sturgeon Stocks; a Discussion, by A. V. Pavlov.  
RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 18-20.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

How to Make Sanitary Carp Fishery Enterprises of the Western Ukraine, by V. M. Ivasik, I. M. Karpenko.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, p 23.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Urgent Problems in State Owned Pond Fisheries. (Conclusion), by V. A. Murin.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 77-78.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Arbitration and the Consolidation of Legality in the National Economy, by N. I. Kleyn, 14 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 51-58.  
JPRS 42813

USSR  
Economic (Contd)

Cost Accounting in the Material-Technical Supply System, by A. I. Baskin, V. I. Odess, 15 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 75-81.  
JPRS 42813

Consumer Co-Op Food Purchases, by M. Aganin, 6 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'skaya Kooperatsiya, No 9, 1967, pp 2-4.  
JPRS 42984

Relation of Supply and Demand, by Sh. Afrutkin, 13 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'skaya Kooperatsiya, No 9, 1967, pp 52-56.  
JPRS 42984

Soviet Foreign Trade, by N. Barinov and S. Troshin, 5 pp.  
RUSSIAN, per, Sovetskaya Torgovlaya, 16 Sep 1967, p 2.  
JPRS 43106

A World Survey of the Shrimping Trade, by B. G. Ivanov.  
RUSSIAN, bk, Sovremennoe Sostoyanie Mirovogo Promysla Krevetok, 1964, CFSTI TT 67-51268

Il'yichevsk -- New Region in Odessa, by A. Danchenko I. Kornet, Kolesnikov, V. Panfilov, 32 pp.  
RUSSIAN, per, Stroitel'stvo v Arkhitektura, Vol 4, 1964, pp 12-21, plus 8 single newspaper articles  
DIA LN 300-67

Some Results of the Electric Fishing in the Volga Delta, by V. N. Lukashev and V. V. Usachev.

RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnashnoe Khoziaistvo, VNIRO, Vol 61, 1966, pp 159-171.

\*Dept of Interior  
Fish and Wildlife Service.  
BCF, Bureau of Foreign Fisheries

Technology and Organization of Production, 5 pp.  
RUSSIAN, per, Tekhnologiya i Organizatsiya Proizvodstva, No 1.  
ACSI J-2489  
ID 2204020367

Operating the Central Heating System of Moscow, by N. K. Gromov, I. S. Lanin, Ye. A. Kutsko and Yu. M. Mikhaylovskiy, 38 pp.  
RUSSIAN, per, Teplo Energetika, No 2, February 1967, pp 9-18  
DIA LN 265-67

USSR  
Economic (Contd)

Economic Reform in Transportation Construction Enterprises, by I. S. Oganesov, 342 pp.  
RUSSIAN, per, Transportnoye Stroitel'stvo, March 1967, 19 pp.  
pp 1-4  
DIA LN 342-67

The Development of the Nickel-Cobalt Industry in the USSR, by A. A. Mironov, 14 pp.  
RUSSIAN, per, Tsvetnyye Metally, No 2, February 1967  
pp 1-9  
DIA LN 290-67

History of the Soviet Lead-Zinc Industry, by Z. V. Chumak, 17 pp.  
RUSSIAN, per, Tsvetnyye Metally, No 8, Aug 1967, pp 5-13.  
JPRS 43104

Collective Farm Economics in the Non-Black-Earth Zone, by V. Prawdin, 14 pp.  
RUSSIAN, per, Vestnik Statistiki, No 8, Aug 1967, pp 23-32.  
JPRS 42799

New Equipment and Methods for Petroleum Recovery, by Ye. Belyayeva, 6 pp.  
RUSSIAN, per, Vestnik Statistiki, No 9, Sept 1967, pp 62-65.  
JPRS 42969

The Five-Year Plan for Development of the National Economy and Some Problems for Fisheries Research, RUSSIAN, per, Voprosy Ikhtiologii, Vol 6, No 2, 1966, p 39.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Natural Resources and Communism, by N. V. Mel'nikov, 6 pp.  
RUSSIAN, np, Vyshka, 3 Aug 1967, p. 2.  
JPRS 42867

Home of the Diesel Locomotive; Railroad Transportation in the USSR in 1966, by P. I. Kmetik, 22 pp.  
RUSSIAN, per, Zheleznodorozhniy Transport, No 3, 1967, pp 3-8, 29-32  
DIA LN 371-67

Kiev Yesterday, Today and Tomorrow, by M. Burka  
RUSSIAN, per, Zhilishchnoye Stroitel'stvo, No 2, February 1967, pp 2-5  
DIA LN 283-67

USSR  
Economic (Contd)

Operating Regime of Dwellings Containing an Average Number of Stories in Ashkhabad, by B. Vasil'yev, RUSSIAN, per, Zhilishchnoye Stroitel'stvo, No 2, February 1967, pp 5-7  
DIA LN 283-67

Fifty Years of Great Achievements, by V. Kamenskiy, 10 pp.  
RUSSIAN, per, Zhilishchnoye Stroitel'stvo, No 3, 1967, pp 2-6  
DIA LN 345-67

Renewal of Railroads in the Soviet Union, by P. Muratov and L. Haglund, 19 pp.  
FINNISH, per, Rautatie Likenne, No 7-8, August 1966, pp 337-339, 341-344, 357-361, 363  
DIA LN 148-67-A

Participation of Soviet Wall-Bracket Cranes in Project "Wide Track," by K-H. Newmann and M. Hoptner 9 pp.  
GERMAN, per, Signal und Schiene, Vol 10, No 3, March 1966, pp 127-130  
DIA LN 319-67-K

Political

Capitalist and Socialist Conflict Today, by Stepan Konstantinovich Il'in, 13 pp.  
RUSSIAN, bk, Moral'nyy Faktor v Sovremennoy Vozme, 1967, pp 17-32.  
JPRS 43005

The October Revolution and Scientific Progress, by M. Keldysh.  
RUSSIAN, np, Pravda, 25 Oct 1967, p 2, Col 1-8, p 3, Col 1-8.  
\*FTD-INT-23-1570-67

The Antarctic Must Become an Area of Peace, by S. B. Slevich. 79 pp.  
RUSSIAN, rpt, Society for the Dissemination of Political and Scientific Knowledge of the RSFSR, Leningrad 1960.  
Dept of Navy NIC tr 2468

Marxism and Christianity Judged Irreconcilable, by D. Bol'shov, 12 pp.  
RUSSIAN, np, Sovetskaya Kul'tura, 5 Sept 1967, pp 2-4.  
JPRS 42847

USSR  
Political (Contd)

The International Importance of the Great October Socialist Revolution (Scientific Conference in Moscow), 12pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 14-22.  
JPRS 42671

USSR  
Military (Contd)

Heroic Sevastopol, by N. Mazunin.  
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal, No 10, 1966, pp 120-125.  
ACSI J-3257  
ID 2204039567

Military

Civil Defense in Rural Regions - Training Manual.  
RUSSIAN, bk, Ministry of Defense, Moscow, 1965  
P911337267  
AEC ORNL Tr-1993

Combating Low-Flying Targets, by V.A. Zalepa.  
49 pp.  
RUSSIAN, bk, Bor'ba S Nizkoletyashchimi Tseliami, 1966, pp 1-64. P100282967  
FTD-MT-66-169

Mine-Torpedo Weapons During the Years of Soviet Power, by B. D. Kostygov, 8 pp.  
RUSSIAN, per, Morskoy Sbornik, No 9, 1967, pp 34-48.  
Dept of Navy ONI tr 2484

Precision Sighting, by V. Andrianov, 7 pp.  
RUSSIAN, per, Sovetskiy Voin, 1966, pp 8-12  
DIA LN 109-67

Work Days of Strategic Troops, by Yu Pronyakin, V. Gzhel'skiy.  
RUSSIAN, per, Sovetskiy Voin, No 10, 1967, pp 21-28.  
\*ACSI J-3520  
ID 2204048867

Tank Battalion in Combat, by P. I. Konoplyan and N. A. Maykov, 200 pp.  
RUSSIAN, per, Tankovyy Batal'on v Boyu, 1966.  
\*ACSI J-3663  
ID 2204052267

Documents on the Battle of Moscow.  
RUSSIAN, per, Vyelikaya Moskovskaya Bitva, undated.  
ACSI J-3252  
ID 2204039667

Geographic

Geomorphology of Dzhungariya, by Ye. I. Selivanov, 151 pp.  
RUSSIAN, per, Nedra Publishing House, 1965, 155 pp  
DIA LN 341-67

Yaroslavl' -- A City on the Upper Volga, by V. K. Gusev, 12 pp.  
RUSSIAN, per, Gorodskoye Khozyaystvo Moskviy, No 1, 1967, pp 35-39  
DIA LN 285-67

Lake Beloe Cisco in the Kuibyshev Artificial Reservoir, by V. M. Chikova.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 12, 1966, p 19.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Sociological

Sociological Problems of the Development of Science and Technology, by V. I. Belosertsev and V. I. Shpancer, 13 pp.  
RUSSIAN, per, Filosofskiy Nauki, No 4, 1967, pp 167-173.  
JPRS 42805

Socialist Tadzhikistan, by M. Kholov, 7 pp.  
RUSSIAN, per, Kommunist Uzbekistana, No 2, February 1967, pp 40-45  
DIA LN 334-67

USSR  
Sociological (Contd)

Planning for Leisure Time with Eight-Hour Day, by G. Prudenskiy, 10 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 3-8.  
JPRS 42904

Regulations for Annual Bonuses for Enterprise Workers, 7 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 47-51.  
JPRS 42904

Critical Path Schedule for Converting to Five-Day Week, by L. Fal'kovskaya and A. Franko, 7 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 71-75.  
JPRS 42904

Proposals for Improving Labor Organization in Agriculture, by I. Kurbatov, 9 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 76-81.  
JPRS 42904

Engineers Dissatisfied with Work Conditions, by K. Khovkunova, 8 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 82-86.  
JPRS 42904

Regulations on Material Incentive for Work Under Technically-Sound Norms, by I. Galitskiy, 11 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 103-110.  
JPRS 42904

The Socially Necessary Measure of Labor and Its Remuneration, by N. Figurnova, 7 pp.  
RUSSIAN, per, Sotsialisticheskiy Trud, No 7, Jul 1967, pp 117-121.  
JPRS 42806

Application of Individual Labor Legislation Norms with Five-Day Work Week, by V. Lazarev, 10 pp.  
RUSSIAN, per, Sotsialisticheskiy trud, No 7, Jul 1967, pp 130-136.  
JPRS 42904

Legal Regulation of Job Placement For Soviet Citizens, by Yu. P. Orlovskiy, 14 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 35-43.  
JPRS 42798

USSR  
Sociological (Contd)

Improving Evening and Correspondence School Education, 8 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, No 7, 1967, pp 3-7.  
JPRS 42985

Certain Problems in Teaching Social Hygiene and Public Health Organization in Therapeutic and Pediatric Departments, by Yu. P. Lisitsyn, Yu. P., 12 pp.  
RUSSIAN, per, Sovetskoye zdravookhraneniye, No 9, 1967, pp 3-11.  
JPRS 43105

Vital Questions in the Financing of Public Health, by I. V. Babanovskiy, 5 pp.  
RUSSIAN, per, Sovetskoye zdravookhraneniye, No 9, 1967, pp 65-67.  
JPRS 43105

Georgian SSR Prepares for Universal Secondary Education, by T. Lashkarashvili, 5 pp.  
RUSSIAN, per, Uchitel'skaya Gazeta, No 93, 5 Aug 1967, pp 1-2.  
JPRS 42985

The Scientific Organization of Labor in Higher Education, by M. L. Razu, 6 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 16-27.  
JPRS 42756

Production Management -- An Integrated Course, by O. A. Deyneko, 6 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 16-27.  
JPRS 42756

The Department of Organizers, by G. A. Bryan-skiy, 6 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, pp 16-27.  
JPRS 42756

Methods of Programmed Teaching for Future Soviet Teachers, by R. P. Dvorzhetskaya, A. F. Khalim, 5 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 28-35.  
JPRS 42756

At Novokuznetsk Pedagogical Institute, by L. N. Sanzharov, 5 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 28-35.  
JPRS 42756

At Orehovo-Zuyevo Pedagogical Institute, by V. V. Vladimirskaia, 5 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 28-35.  
JPRS 42756

The First Product of the First Department, by T. Samokhvalova, 3 pp.  
RUSSIAN, per, Vestnik Vysshey Shkoly, No 7, 1967, pp 28-35.  
JPRS 42756

Legal Services in Industry, by V. P. Deksnis, I. L. Kaganas, 10 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 59-65.  
JPRS 42813

Legal Services of Industrial Ministries, by Ya. A. Korf and V. P. Markaryants, 6 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 65-68.  
JPRS 42813

Legal Work at the Enterprise (I), by V. A. Potapov, 6 pp.  
RUSSIAN, per, Sovetskoye gosudarstvo i pravo, No 8, Aug 1967, pp 68-72.  
JPRS 42813

Popularization of the Achievements of Science -- A Primary Duty of Scientists, by I. I. Artobolevskiy, 8 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 33-38.  
JPRS 42671

On the Problem of Authority in Sociological Theory, by V. C. Komarov, 17 pp.  
RUSSIAN, per, Vestnik Leningradskogo Universiteta, No 11, issue No 2 of the Economics, Philosophy and Law Section, Jun 1967, pp 86-96.  
JPRS 43111

Biographic

Nikolai Antonovich Maslov (1899-1965).  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42 No 2, p. 18, 1966.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Economic

The Socio-Economic Rapprochement of Village and Town, by Prof Dimo Vladov, 11 pp.  
BULGARIAN, per, Partien zhivot, No 12, Aug 1967, pp 81-86.  
JPRS 42963

Long-Range Planning of Foreign Trade, by Vero-  
slav Cubr, 6 pp.  
CZECH, per, Noviny Zahranicniho Obchodu, Vol 5, No 36, 6 Sep 1967, p 3.  
JPRS 42990

Personnel, 4 pp.  
CZECH, per, A Revue, No 7, 1966, pp 64-67  
DIA LN 419-67

Czech Foreign Minister Announces 1964 Intra-  
bloc Agreement for Cooperation in the Anti-  
friction Bearing Industry, 12 pp.  
CZECH, per, Stirka Zákona, No 24, Part 14,  
pp 113-118.  
JPRS 42743

Foreign Trade Minister Discusses Foreign Trade Trends, by Horst Solle, 19 pp.  
GERMAN, per, Aussenhandel, No 7, Jul 1967,  
pp 5-13.  
JPRS 42843

Foreign Trade Prospects, by Degenhard Albrecht and Gerhard Beil, 16 pp.  
GERMAN, per, Aussenhandel, No 7, Jul 1967,  
pp 14-20.  
JPRS 42843

Suggestions for More-Successful Pike Breeding, by K. Anwand.  
GERMAN, per, Deutsche Fischerei-Zeitung, Vol 12, No 2, 1965, pp 33-39.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Modern Rolling Stock and Railroad Station Installa-  
tions of the City and Suburban Railroad of the PKP in Warsaw, by Gunter Gotz, 18 pp.  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 9, September 1966, pp 312-315, 316-319  
DIA LN 317-67-D

Eastern Europe  
Economic (Contd)

The Application of Differential Thermal Analysis and Thermogravimetry in the Examination of Explosives, by G. Krien.  
GERMAN, per, Explosivstoffe, Vol 13, No. 8, 1965, pp 205-220.  
TIL T5719

Exhibits From GDR Traction-Vehicle Engineering at the Leipzig Spring Fair 1966, by W. Duck and C. Schwerin, 12 pp.  
GERMAN, per, Schienenfahrzeuge, No 3, March 1966, pp 76-77, 93-94, 104  
DIA LN 318-67-J

Bridge on the Expressway "Kleine Plauensche Gasse" in Dresden, by E. Thurmer  
GERMAN, per, Die Strasse, Vol 6, No 7, April 1964, pp 328-337  
DIA LN 272-67

Markings and Guiding Facilities at Autobahn Intersections, by G. Schmehl  
GERMAN, per, Die Strasse, Vol 6, No 7, April 1964, pp 328-337  
DIA LN 272-67

Status of East-West German Trade, 11 pp.  
GERMAN, per, Wochenbericht, Deutsches Institut fur Wirtschaftsforschung, Vol XXXIV, No 40, 6 Oct 1967, pp 211-214.  
JPRS 43097

The New System for Managing Foreign Exchange, by Gyula Eros, 7 pp.  
HUNGARIAN, per, Figyelő, 16 Aug 1967, p 3.  
JPRS 42828

Tasks and Jurisdiction of Minister of Metallurgy and Machine Industry, 7 pp.  
HUNGARIAN, per, Kohó és Gépgyári Kozlony, No 29, 22 Jul 1967, pp 237-239.  
JPRS 42916

The Continuous Superstructure of Mav Is Ten Years Old; Railroad -- Running Technology of the Cooperation of the Vehicles and the Track, by B. Unyi and L. Buza Kiss, 29 pp.  
HUNGARIAN, per, Kozlekedestudományi Szemle, Vol 16, No 12, December 1966, pp 529-537; 545-549  
DIA LN 331-67

Legal Regulation of Foreign Trade Enterprises Established, by Peter Katona, 14 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 8, Aug 1967, pp 228-233.  
JPRS 42734

Eastern Europe  
Economic (Contd)

The Trends of Foreign Trade Prices in 1966 Analyzed, by Istvan Szekulesz, 11 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 8, 1967, pp 233-236.  
JPRS 42734

Consulting Engineering Introduced as Aid to Foreign Trade, by Andras Faludi, 5 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 8, Aug 1967, pp 249-250.  
JPRS 42734

Results and Problems of Hungarian-Yugoslav Industrial Cooperation Discussed, by Pal Kallai, 8 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 8, Aug 1967, pp 251-253.  
JPRS 42734

Expanding Economic Relations Between Hungarian and Rumanian Industries, by Pal Kallai, 5 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 9, Sep 1967, pp 267-268.  
JPRS 42915

Trends in the Development of Socialist Foreign Trade Prices, by Ferenc Bartha, 7 pp.  
HUNGARIAN, per, Kulkereskedelmi Szemle, No 9, Sep 1967, pp 271, 272, 274.  
JPRS 42915

New Agricultural Producer Prices, by Ervin Borbenyi and Bela Palovics, 18 pp.  
HUNGARIAN, per, Magyar Mezogazdaság, No 33, 16 Aug 1967, supplement pp 1-8.  
JPRS 42807

New State Purchase Prices and Economic Soundness, by László Pillai, 5 pp.  
HUNGARIAN, per, Magyar Mezogazdaság, No 33, 16 Aug 1967, pp 16-17.  
JPRS 42807

Regulation on Official Buying Prices of Agricultural and Livestock Products, 81 pp.  
HUNGARIAN, per, Mezogazdasági és Élelményesügyi Értesítő, Vol 18, No 30, 1 Aug 1967, pp 533-572.  
JPRS 42932

The Tax Structure of Agricultural Producer Cooperatives, by Mihály Birling, 9 pp.  
HUNGARIAN, per, Pénzügyi Szemle, No 5, May 1967, pp 404-409.  
JPRS 42807

Eastern Europe  
Economic (Contd)

Twentieth Anniversary of Building Industry Transportation, by A. Modrakowski, 29 pp.  
POLISH, per, Motoryzacja, December 1966, pp 313-327  
DIA LN 271-67

Motoring in the 1967 Plan; Let Us Discuss the Network of Auto Service Stations in Poland, by A. P. Tyszkiewicz and M. Szowa, 18 pp.  
POLISH, per, Motoryzacja, No 3, March and February 1967, pp 51-52, 30-36  
DIA LN 408-67

Actual Problems of Polish Chemical Industry, by Antoni Radlinski, 16 pp.  
POLISH, per, Nowe Drogi, No 9, Sep 1967, pp 3-13.  
JPRS 43112

Fuel and Electric Power Base and Development Trends, by Jozef Olczewski, 15 pp.  
POLISH, per, Nowe Drogi, No 9, Sep 1967, pp 14-26.  
JPRS 43112

Agricultural Circles in the Farm Production Contracting System, by Roman Malinowski, 7 pp.  
POLISH, per, Nowe Rolnictwo, No 5, 1-5 Aug 1967, pp 10-12.  
JPRS 42932

Achievements of the Joint Freightcar Pool, by K. Sankowski, 8 pp.  
POLISH, per, Przeglad Kolejowy Przewozowy, No 8, Aug 1967, pp 24-27.  
JPRS 42917

Adaptation of Line Programming for Automotive Transportation, by B. Zukowski, 7 pp.  
POLISH, per, Przeglad Komunikacyjny, 1966, pp 405-408  
DIA LN 421-67

Achievements and Goals of Machine Industry, by Janusz Hrynkiewicz, 7 pp.  
POLISH, per, Przeglad Mechanicznny, No 15, 10 Aug 1967, pp 453-455.  
JPRS 43099

Achievements of the Foreign Trade Enterprise, by Henryk Stasikowski, 10 pp.  
POLISH, per, Przeglad Techniczny, No 40, 1 Oct 1967, pp 4-5.  
JPRS 43098

Eastern Europe  
Economic (Contd)

The Second Tisza Water Stage; The Extraordinary Session of the Danube Commission, by J. Szucs and L. Berenyi, 12 pp.  
HUNGARIAN, per, Termeszetter Domanyi Kozlony, No 11, November 1963, pp 490-493, 518-519

Plan for New Crossings Adapted for Greater Traffic Strain and Train Speeds, by Henryk Baluchi and Ryszard Zahorski, 8 pp.  
POLISH, per, Sygnaly, Vol XVII, No 3, January 1967, pp 1-4  
DIA LN 306-67-A

Economic and Social Activities of Farm Circles in 1966, by Jozef Majdak, 10 pp.  
POLISH, per, Wies Wspolczesna, No 8, Aug 1967, pp 99-104.  
JPRS 42742

Aluminum Industry -- Its Goals and Capabilities, by Krzysztof Krauss, 6 pp.  
POLISH, per, Zycie Gospodarcze, No 36, 3 Sept 1967, pp 1, 4.  
JPRS 42964

Water Gave Birth to Ozos, by Miroslaw Dyner, 6 pp.  
POLISH, per, Zycie Gospodarcze, No 36, 3 Sept 1967, p. 3.  
JPRS 42964

Agricultural Circles in 1965-1966, by Janusz Wasylkowski, 9 pp.  
POLISH, per, Zycie Gospodarcze, No 36, 3 Sep 1967, p 6.  
JPRS 42994

Internal Financial Control in Support of Export Tasks, by Cornel Cicicopal, 7 pp.  
RUMANIAN, per, Finante si credit, No 7, Jul 1967, pp 59-64.  
JPRS 42747

Possibilities for Increasing the Economic Effectiveness of Geological Work, by V. Zamfirescu, M. Popescu, 14 pp.  
RUMANIAN, per, Finante si Credit, Vol XIII, No 8, Aug 1967, pp 30-40.  
JPRS 42916

Deepening of Scientific Organization of Production and Labor Needed in the Food Processing Industry, 7 pp.  
RUMANIAN, per, Industria alimentara, No 7, July 1967, pp 1-3.  
JPRS 42882

Eastern Europe  
Economic (Contd)

The Economic Efficiency of the "Gheorghe Gheorghiu-Dej" Hydroelectric Power Plant on the Arges River, by V. Mohan, 11 pp.  
RUMANIAN, per, Probleme Economice, No 8, Aug 1967, pp 54-62.  
JPRS 42916

Foreign Trade and Technical Progress, by I. Kun, 15 pp.  
RUMANIAN, per, Probleme Economice, No 8, Aug 1967, pp 212-234.  
JPRS 42843

Linear Programming in Motor Transportation, by I. Preotescu and D. Nitescu, 12 pp.  
RUMANIAN, per, Revista Transporturilor, No 11, November 1966, pp 485-486, 488-490  
DIA LN 60-67

Fruitful Cooperation Between Scientific Research and Planning, by Mihai Nistor, 5 pp.  
RUMANIAN, per, Scinteia, 18 Aug 1967, pp 1 and 4.  
JPRS 42828

Structural Changes in National Income, by C. Barbacioru, 18 pp.  
RUMANIAN, per, Studii si Cercetari Economice, Vol III-IV, 1966, pp 91-103.  
JPRS 42828

Improve Export Operations for Products of Light Industry, by A. Detesan and T. Dumitru, 11 pp.  
RUMANIAN, per, Vista Economica, Vol 5, No 35, 1 Sep 1967, pp 5-6.  
JPRS 43098

Suppliers Held Responsible for Quality of Export Goods, by D. Alexandru and O. Popescu, 5 pp.  
RUMANIAN, per, Vista Economica, Vol 5, No 35, 1 Sep 1967, p 6.  
JPRS 43098

The Chemical Industry of the German Democratic Republic, by B. M. Berezov, 9 pp.  
RUSSIAN, per, Khimicheskay Promyshlennost', No 3, 1967, pp 74-77  
DIA LN 335-67

The Relations Between Agriculture and Other Activities in 1964 - An Input-Output Analysis, by Dobrosav Tadic, 15 pp.  
SERBO-CROATIAN, per, Ekonomika Poljoprivrede, No 7-8, Jul-Aug 1967, pp 483-494.  
JPRS 42740

Eastern Europe  
Economic (Contd)

Some Current Problems in Cooperation in Agriculture and in Agricultural Cooperatives Under the New Economic Conditions (Theses for Discussion of the Problems), 11 pp.  
SERBIAN, per, Ekonomika Poljoprivrede, No 9, Sep 1967, pp 627-634.  
JPRS 42994

The Results, Forms, and Prospects of Business Cooperation Between Cooperatives and Agricultural Producers, by Vlastimir Filipovic, 14 pp.  
SERBIAN, per, Ekonomika Poljoprivrede, No 9, Sep 1967, pp 731-740.  
JPRS 42994

Scientific Research and Development Base in Slovakia, by Julius Pavlis, 7 pp.  
SLOVAK, per, Hospodarske Noviny, No 36, 8 Sep 1967, p 6.  
JPRS 42901

Development of Rumanian-Soviet Trade, by Dumitru Bejan, 5 pp.  
RUSSIAN, per, Ekonicheskaya Gazeta, No 35, Aug 1967, p 42.  
JPRS 42800

Soviet Aid Transforms Bulgarian Industry, by Stanko Todorov, 6 pp.  
RUSSIAN, per, Ekonicheskaya Gazeta, No 36, Sep 1967, pp 27-38.  
JPRS 42800

Polish Sea Fishing, by H. Teclaf.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 11, 1966, pp 86-87.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A Polish Fish Meal Making Installation, by V. F. Semikov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 6, 1967, p 80.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Eastern Europe  
Political

The Competency of Party Management, by Kelya Koleva, 9 pp.  
BULGARIAN, per, Partien zhivot, No 12, Aug 1967, pp 9-15.  
JPRS 42963

Czech View of Development of Socialist Society, by Jaroslav Korinek and Ladislav Tomasek, 18 pp.  
CZECH/SLOVAK, per, Nova Mysl, 19 Sep 1967, pp 3-7.  
JPRS 42889

Problems of Struggle Against Religious Ideology, by Lubomir Valchar, 10 pp.  
CZECH, per, Zivot Strany, No 18, Aug 1967, pp 26-29.  
JPRS 42746

Just What is the Leading Role of Party Organizations, by Ladislav Paper, 10 pp.  
CZECH, per, Zivot Strany, No 18, Aug 1967, pp 30-33.  
JPRS 42746

Karl Marx - From Romanticism to Totalitarianism, by Ernst Kux, 13 pp.  
GERMAN, per, Neue Zuercher Zeitung, 20 Aug 1967, p 10.  
JPRS 42736

Eastern Europe  
Military (Contd)

Antitank Weapons, by Edward Hill et al.  
CZECH, per, Protitankove Zbrane, 1961  
\*ACSI J-2518  
ID 2213036564

Outdoor High-Lift Truck.  
CZECH, per, Technicky Tydenik, 1967, p 12.  
\*ACSI J-3598  
ID 2204051067

West and East in Action and Reaction, by Reinhard Guenther.  
GERMAN, rpt, 1966.  
\*ACSI J-3482  
ID 2204045867

Quality Control of Technical Military Materiel, by R. Heidtkampf.  
GERMAN, per, Jahrbuch Der Wehrtechnik, 1966, pp 193-196.  
\*ACSI J-3597  
ID 2204050967

Heavy Industry and Armored Weapons.  
GERMAN, per, Kampftruppen, Vol 3, June 1967, pp 80-81.  
ACSI J-3195  
ID 2204037367

Ideas on Employment of Armor, by D. Willikens.  
GERMAN, per, Kampftruppen, No 4, Aug 1967, pp 105-108.  
\*ACSI J-3554  
ID 2204049767

Do the Armored Forces Need a Tank, by J. Jung.  
GERMAN, per, Kampftruppen, No 4, Aug 1967, pp 109-111.  
\*ACSI J-3554  
ID 2204049767

Pneumatic Shelters for Military Purposes.  
GERMAN, per, Militartechnik, No 4, 1967, pp 169-170.  
\*ACSI J-3563  
ID 2204050267

The Operating Principle of the Tank Cannon Which is Stabilized in Two Planes, by H. Tonndorff, W. Braune.  
GERMAN, per, Militartechnik, No 5, 1967, pp 210-213.  
ACSI J-2899  
ID 2204030467

Eastern Europe  
Military (Contd)

Basic Principles of the Design of Modern Automatic Light Arms, by H. Knoppler.  
GERMAN, per, Militaertechnik, No 7, 1967, pp 306-308.  
\*ACSI J-3596  
ID 2204050867

The Armored Infantry Squad (Armored Personnel Carrier), 270 pp.  
GERMAN, per, Die Panzergrenadiergruppe (SPz), Oct 1966.  
\*ACSI J-3669  
ID 2204052367

Development Tendencies of the Conventional Artillery, by K. Schaffer.  
GERMAN, per, Truppendifest, No 3, 1967, pp 199-203.  
\*ACSI J-3711  
ID 2204052567

High Performance Weapons with Conical Tubes for the German Wehrmacht in WW II Part I and II, by H. Neufeldt.  
GERMAN, per, Wehrtechnische Monatshefte, No 4, Part I, 1967, pp 144-155; No 5/6, Part II, 1967, pp 226-238.  
\*ACSI J-3547  
ID 2204049267

ABC Defense. The Present Situation in the Military and Civil Defense Personal Dosimetry, by Klaus Becker.  
GERMAN, per, Zivilschutz, No 2, 1966, pp 56-61.  
ACSI J-3063  
ID 2204034167

Infantry Operation in Armored Carriers, by E. Jastrzebski and M. Socala, 63 pp.  
POLISH, per, Przeglad Wojsk Ladowych, 1966, entire book  
DIA LN 295-67

Engineering Security: Infantry Subdivisions Operating in Air Drops, by W. Dawidowicz, W. Siemaszkiewicz and J. Skalski, 15 pp.  
POLISH, per, Przeglad Wojsk Ladowych, No 1 (79), January 1966, pp 39-46, 111-117  
DIA LN 294-67

Reference Material for Troop Instruction in ABC Defense.  
CROATIAN, per, Directorate of Atomic, Biological and Chemical Defense of the Yugoslavian Peoples Army.  
\*Dept of Navy ONI

Eastern Europe  
Military (Contd)

Nuclear, Chemical and Biological Control of Combat Zones and Territories, by Bogoljub Djordjevic, 17 pp.  
SERBO-CROATIAN, per, Vojno Delo, No 5, Sep-Oct 1967, pp 52-65.  
JPRS 43096

The Action of Lower Echelon Tactical Units in Close Combat, by Luka Andjelic, 14 pp.  
SERBO-CROATIAN, per, Vojno Delo, No 5, Sep-Oct 1967, pp 66-77.  
JPRS 43096

Some Problems of Estimating the Situation in Bilateral Use of Nuclear Combat Weapons, by Jovo Ninkovic, 11 pp.  
SERBO-CROATIAN, per, Vojno Delo, No 5, Sep-Oct 1967, pp 113-121.  
JPRS 43096

Sociological

Rural Cooperative Model, by Stanislaw Gucwa, 8 pp.  
POLISH, per, Wies Wspolczesna, No 8, Aug 1967, pp 29-34.  
JPRS 42742

Improvement of Cultural-Educational Activities an Important Trade-Union Goal, 6 pp.  
RUMANIAN, per, Munca, 18 Aug 1967, pp 1 and 3.  
JPRS 42740

The Development of the Health Service in Serbia in Recent Years and the Prospects for its Future Development, by Dj. Jakovljevic, 6 pp.  
SERBO-CROATIAN, per, Glasnik Zavoda za zdravstvenu zaštitu SR srpske, No 1-2, Jan-Apr 1967, pp 7-11.  
JPRS 42989

Economic

The Historical Development of Greenland's Tele-Service, by L. Sondergaard, B. Wulffsberg, 41 pp. DANISH, per, Teleteknik, No 4, December 1966, pp 167-182, 188-190  
DIA LN 261-67

The French Freezer Tuna Fishing Vessels in the African Waters of the Atlantic, by E. Postel. FRENCH, per, Cahiers (Oceanographie) ORSTOM, Vol 3, No 2, 1965, pp 19-62.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

First French Exporter of Telephone Equipment, 19 pp. Traffic Statistics for the Berlin Metropolitan Rail-FRENCH, per, Enterprise, No 603, March 1967, pp 59-68way, by G. Gotz and K. Dikomey, 13 pp.  
DIA LN 340-67

Extension of Restricted French Fisheries, by Albert Boyer. FRENCH, per, La Peche Maritime, No 1072, July 1967, pp 489-492.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries.

New 50 Hz Rectifier Locomotives E251 for the German National Railways, by J. Gest, H. Espig, J. Degenkolbe, E. Lienert, H. Weber, H. Brechler, H. Kruger and H. Schulz, 84 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, March 1966, pp 99-107, 108-111, 112-114, 115-118, 135-137, 138-142, 149-156  
DIA LN 320-67-K

The Results of the Regular Heavy-Load Transport on the In-Town Traffic, by H. Kurtz and H. Prussak, 11 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, No 6, June 1966, pp 255-257, 288-289  
DIA LN 320-67-H

Uniform Design of Electric Motor Cars for Various Current Systems, by F. Jansa, S. Rudorf and D. Conrad, 25 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, No 11, November 1966, pp 499-503, 525-527, 529-530  
DIA LN 320-67-D

Speedy Information, 14 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, No 2, February 1967, pp 92-95  
DIA LN 320-67-B

The State Railway Directorate Halle, by K. Hetz, W. Wlaifoff and G. Kohler, 90 pp.  
GERMAN, per, Eisenbahn-Jahrbuch, 1966, pp 13-25, 40-54, 98, 107, 108-114  
DIA LN 363-67

The Rubeland Railroad -- Historical Development and Industrial Measures for the Increase of Its Efficiency, by W. Rosel, 25 pp.  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 1, January 1966, pp 7-16  
DIA LN 317-67-I

Rationalization in Operation and Traffic Service, by W. Thoss, 32 pp.  
GERMAN, per, Eisenbahn Praxis, No 5, May 1966, pp 147-149, 154-159, 166-169  
DIA LN 317-67-G

The Establishment of a Suburban Rapid Transit System in the Extended Area of Dresden, by Hans-Joachim Reinhold  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 6, June 1966, pp 201-202  
DIA LN 317-67-F

Rapid Transit for Rostock, by Ulrich Rabe  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 6, June 1966, pp 209-210  
DIA LN 317-67-F

Concerning the Connection Between Large Freightcar and Load Size, by Helmut Zesewitz  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 10, October 1966, pp 329-331  
DIA LN 317-67-C

Operating Service for Railroad Personnel  
GERMAN, per, Eisenbahn Praxis, Vol 10, No 10, October 1966, pp 341-342, 352  
DIA LN 317-67-C

Western Europe  
Economic (Contd)

Maintenance Terms for Freight Cars, by P. Drossel, K. Topfer, 22 pp.  
GERMAN, per, Schienenfahrzeuge, No 10, October 1965, pp 327-330, 331-333, 351-352, inside back cover  
DIA LN 318-67-E

Completion of the Program of the German National Railroads for the Reconstruction of Steam Locomotives, by H. Kirchoff, 15 pp.  
GERMAN, per, Schienenfahrzeuge, No 1, January 1966, pp 14-15, 27-28  
DIA LN 318-67-L

Reasons for the Use of the E251, by M. Hoppner, 18 pp.  
GERMAN, per, Schienenfahrzeuge, No 2, February 1966, pp 39, 42-45, 63-64  
DIA LN 318-67-K

International Reputation Is Confirmed, by K. Liebal, 16 pp.  
GERMAN, per, Schienenfahrzeuge, No 5, May 1966, pp 147-148, 153-154, 171-172  
DIA LN 318-67-I

How the Transition Is Accomplished, by P. Wichmann, 14 pp.  
GERMAN, per, Schienenfahrzeuge, No 6, June 1966, pp 187-190, 207-208, inside rear cover  
DIA LN 318-67-H

Railway-Car Construction in France, by M. Hoppner, 12 pp.  
GERMAN, per, Schienenfahrzeuge, No 8, August 1966, pp 273-277, 281-282, inside rear cover  
DIA LN 318-67-G

Test and Application of Current Transmission Lubricants, by H. Schutz, 17 pp.  
GERMAN, per, Schienenfahrzeuge, No 9, September 1966 pp 293-296, 302-303, 317-318  
DIA LN 318-67-F

Essential Differences Between Passenger Coaches Type Y and Type B, by W. Jaenichen, F. Nied, R. Krause and R. Wilke, 31 pp.  
GERMAN, per, Schienenfahrzeuge, No 12, December 1966 pp 414-416, 421-423, 428-429, 430-432, inside and outside back cover  
DIA LN 318-67-C

Western Europe  
Economic (Contd)

Developing the Efficiency and Capacity of Railroad Repair Works of the German National Railroads in the Prospective Planning Period up to 1970, by D. Wostenfeld, H. Kubina, R. Drechesler and G. Richter, 26 pp.  
GERMAN, per, Schienen Fahrzeuge, No 2, February 1967 pp 40-42, 44-46, 46-48, 63-64, inside rear cover  
DIA LN 318-67-A

New Telecommunications Techniques at the Leipzig Spring Fair 1966, by Bernhard Liebscher and Eberhard Freundt, 23 pp.  
GERMAN, per, Signal und Schiene, No 5, May 1966, pp 202-206, 215-218  
DIA LN 319-67-I

Complete Mechanization of Superstructure Workings, by K. Eichinger, 11 pp.  
GERMAN, per, Signal und Schiene, No 6, June 1966, pp 259-262  
DIA LN 319-67-H

Construction of Railroad Bridges of Higher Load Capacities, Using Prefabricated Parts, by A. Weeser and G. Hahn, 31 pp.  
GERMAN, per, Signal und Schiene, No 11, November 1966, pp 449-456, 479-482  
DIA LN 319-67-C

Bridge Construction: New Kinds of Reconstruction Measures on an Arched Bridge, by H. Puhl, H. V. Berg H. Schafer and J. Pilgrim, 30 pp.  
GERMAN, per, Signal und Schiene, No 1, January 1967, pp 18-22, 34-35, 36-38, 39-40  
DIA LN 319-67-A

To Higher Efficiency Through Standardization, GERMAN, per, Standardisierung, No 4, 1967, pp 136-137.  
\*ACSI J-3557  
ID 2204045067

Effective Influence on the Development and Level of Quality, by E. Kramer & J. Thurner. GERMAN, per, Standardisierung, No 4, 1967, pp 152-153.  
\*ACSI J-3557  
ID 2204045067

Network Planning in Standardization, by H. Fischer.  
GERMAN, per, Standardisierung, No 4, 1967, pp 156-158.  
\*ACSI J-3557  
ID 2204045067

Standards, Quality, and Cooperative Relationships.  
GERMAN, per, Standardisierung, No 4, 1967,  
p 163.  
\*ACSI J-3557  
ID 2204045067

Inland Navigation and Hydraulic Structures, by Axel  
Lindow & Co., 9 pp.  
GERMAN, per, Wasser und Boden, No 2, February 1967,  
pp 55-58  
DIA LN 328-67

Present Problems of Inland Port Economy, by  
H. Konigshofen, 40 pp.  
GERMAN, per, Zeitschrift fur Binnenschiffahrt, No 1  
January 1967, pp 1-17  
DIA LN 325-67

Professional Visit to Russia by the Italian Hydro-  
technical Association, by P. Penta, 32 pp.  
ITALIAN, per, L'Energia Elettrica, No 12, 1966,  
pp 753-765  
DIA LN 311-67

Long Distance Dialing Today and Tomorrow, by K. E.  
Lagset, 25 pp.  
NORWEGIAN, per, Elektroteknisk Tidsskrift, No 4,  
February 1967, pp 50-62  
DIA LN 374-67

New Type Electric Locomotion for NSB, 11 pp.  
SWEDISH, per, Jarnvagen, No 3, March-April 1967,  
pp 1-3, 5-9  
DIA LN 445-67

One Container Boat Each Week Comes and Goes Between  
Sweden and the USA  
SWEDISH, per, Svensk Sjo Farts Tidning, No 3,  
January 1967, p 113  
DIA LN 301-67

Integrated Container Transports, by T. Rinman  
SWEDISH, per, Svensk Sjo Farts Tidning, No 3,  
January 1967, pp 115-127  
DIA LN 301-67

Principles of Rate Setting for Sea Transport of  
Containers, by A. Koch  
SWEDISH, per, Svensk Sjo Farts Tidning, No 3,  
January 1967, pp 128-131, 144  
DIA LN 301-67

Danish Communist Discusses Gradual Transition  
to Socialism in Finland, by Mikael Romberg,  
6 pp.  
DANISH, per, SF bladet, No 55, 2 Sep 1967,  
p 6.  
JPRS 42736

Current Tasks of Finnish CP Analyzed, by Erkki  
Kivimaki, 7 pp.  
FINNISH, per, Kansan Uutiset, 30 Aug 1967, pp  
4 and 5.  
JPRS 42889

Mao Censured in French International CP Organ,  
15 pp.  
FRENCH, per, Programme Communiste, Vol 11, No  
39, Jul-Sept 1967, pp 3-20.  
JPRS 42847

Critique of the Guevara's Anti-Imperialist  
Strategy, 12 pp.  
FRENCH, per, Programme Communiste, Vol 11, No  
39, Jul-Sept 1967, pp 43-54.  
JPRS 42847

Marxist-Leninist Attacks Belgian "Revisionist"  
Pamphlet, by Fernand Lefebvre, 22 pp.  
FRENCH, per, La Voix du Peuple, No 32, 11 Aug  
1967, p 8, and No 33, 18 Aug 1967, pp 6, 7,  
and 9.  
JPRS 42736

Main Topics of the Communist Slander Campaign  
Against the Defense Policy of the Federal Republic  
of Germany, 19 pp.  
GERMAN, 1966.  
ACSI J-3481  
ID 2204047667

West German Pro-Chinese Socialist Party Cen-  
sures "Revisionists", 6 pp.  
GERMAN, per, Die Wahrheit, No 1, May 1967,  
pp 1-3.  
JPRS 42736

Italian CP Organ Attacks Revisionist Abstract  
Concepts, 5 pp.  
ITALIAN, per, Nuova Unita, 16 Sep 1967, p 3.  
JPRS 42889

Western Europe  
Military

European Firms Collaborating in Construction and Operation of West German Nuclear Ship; Netherlands Collaborated in Design of Reactor; Construction Costs Including Reactor Installation DM 52,800,000.  
DUTCH, per, Nautica, Jun 1964, pp 300-311.  
P500293067  
Dept of Navy ONI tr 1066-a

Military Exercises on the Islands off the Coast. The Test Defendability, by A. Kauhanen, 13 pp.  
FINNISH, per, Reservin Upseri, No 5, 1966, pp 175-181  
DIA LN 158-67-A

Air Security by Nuclear Artillery, by LTC de Btancion.  
FRENCH, per, L'Armee, No 67, Apr 1967, pp 22-27.  
ACSI J-3105  
ID 2204034967

The 5.56 mm Light Automatic Carbine.  
FRENCH, per, Fabrique National d'Armes de Guerre S. A. Herstal - Belgique, undated, pp 1-11.  
\*ACSI J-3594  
ID 2204050667

Instructions for "Mosquito" Medium Range Wire-Guided Anti-Tank Missile.  
ITALIAN, bk, Intruzione Provvisoria sul Missile Filoguidato C/C A Media Gittata Mosquito, 1966,  
ACSI J-2863  
ID 2850029267

Carrying Out the Fleet Plan, by T. Pettersen, 19 pp.  
NORWEGIAN, per, Norsk Militart Tidsskrift, No 1, 1967, pp 1-12  
DIA LN 349-67

Problems of Defense, by O. G., 15 pp.  
NORWEGIAN, per, Norsk Militaert Tidsskrift, No 2, 1967, pp 69-77  
DIA LN 346-67

Battery Position Armored Car 3023, by Jan Anshelm, 3 pp.  
SWEDISH, per, Artilleri Tidsskrift, Vol XCVI, No 1, pp 12-13.  
ACSI J-3382  
ID 2204043367

Western Europe  
Military (Contd)

Measurement Apparatus for Artillery and Anti-Aircraft Guns, by Jan Anshelm, 5 pp.  
SWEDISH, per, Artilleri Tidsskrift, No 6, 1966, pp 118-121.  
ACSI J-3369  
ID 2204042667

Facts about Civil Defense 1967 Edition, 20 pp.  
SWEDISH, rpt, Fakta om Civilfoersvaret 1967 ~~vers~~  
Applaga, 1967.

ACSI J-3490  
ID 2204047767

Geographic

The Present State of Knowledge of Carismo and Subterranean Hydrography in Calabria, by L. Lacquaniti 6 pp.  
ITALIAN, per, Atti Del XVII Congresso Geografico Italiano, 1957, pp 113-123  
DIA LN 414-67

The Spring Zone of the Emilian Plain, West of the Reno River, by Dina Albani, 15 pp.  
ITALIAN, per, Rivista Geografica Italiana, Vol 72, No 2, June 1965, pp 15  
DIA LN 415-67

Sociological

A List of Finnish Hospitals in Operation, 49 pp.  
FINNISH, per, Lakare, Tandlakare, Sjukhus, 1966, pp 309-348  
DIA LN 185-67

Islamabad, by J. Hugueney, 10 pp.  
FRENCH, per, La Vie Urbaine, No 2, April-June 1966, pp 147-155  
DIA LN 117-67

AFRICA

Africa  
Political

Economic

1967-1968 Budget Compared with Past Ones, 6 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No 474, 6 Sep 1967, pp 9569-9571.  
JPRS 42992

Congo-Kinshasa Revamps Housing Loan Procedure, 7 pp.  
FRENCH, per, Le Courrier d'Afrique, 1 Sep 1967, pp 1 and 5; and 2-3 Sep 1967, p 5.  
JPRS 42810

Opposing Concepts on Economic Development in Algeria, by Gerard Viratelle, 5 pp.  
FRENCH, per, Le Monde, 6 Sep 1967, p 5.  
JPRS 42745

Algeria Tightens Oil Industry Control, 7 pp.  
FRENCH, per, El Moudjahid, 30 Aug 1967, pp 1-4.  
JPRS 42810

Industrial Plans and Prospects, 5 pp.  
FRENCH, per, El Moudjahid, 6 Sep 1967, p 5.  
JPRS 42992

Algerian Education Plans for 1967-1968, by El Hadj, 7 pp.  
FRENCH, pp, El Moudjahid, 6, 7 & 8 Sept 1967.  
JPRS 42877

Economic and Social Development in Reunion, by A. Jacquemot, Charles Aumont, 16 pp.  
FRENCH, per, Perspectives d'Outre-Mer, No 70, Apr-Jul 1967, pp 6-7, 22 and 24, 15-17, 25 and 27, 8-9, and 19-20.  
JPRS 42810

Economic Development in the Malagasy Republic, 15 pp.  
FRENCH, per, Perspectives d'Outre-Mer, No 70, Apr-Jul 1967, pp 43-44, 47-48, 53-55, 58-61, and 62-63.  
JPRS 42810

Finance Minister Outlines Economic Policy, 7 pp.  
FRENCH, per, La Vie Economique, 1 Sep 1967, pp 1 and 3.  
JPRS 42801

Royal Decrees on Employee Dismissals and Indemnities, 8 pp.  
FRENCH, per, Bulletin Officiel, 23 Aug 1967, pp 989-990.  
JPRS 42857

Seven Years of Relations Between Israel and French-Speaking Africa, by David Catarivas, 10 pp.  
FRENCH, per, Le Mois en Afrique, No 20, Aug 1967, pp 29-41.  
JPRS 42810

Some Thoughts on Israeli-African Cooperation, by Dan Avni-Segre, 6 pp.  
FRENCH, per, Le Mois en Afrique, No 20, Aug 1967, pp 48-55.  
JPRS 42810

A Portuguese Compares African Socialism and Scientific Socialism, by Eduardo Dos Santos, 19 pp.  
PORTUGUESE, per, Boletim Geral do Ultramar, Vol 43, No 502, Apr 1967, pp 43-71.  
JPRS 42831

Military

French-Ivorian Military Maneuvers Analyzed, by Jacques Isnard, 6 pp.  
FRENCH, per, Le Monde, 13 Sep 1967, p 20; 20 Sep 1967, p 6.  
JPRS 42912

Activity of Veterans Ministry, 6 pp.  
FRENCH, per, El Moudjahid, 19 Aug 1967, p 3.  
JPRS 42801

Sociological

Tunisian Education Plans for 1967-68, 10 pp.  
FRENCH, per, L'Action, 9 Sep 1967, p 9.  
JPRS 42831

The Cult of Rain Among Various Tribes of South-western Angola, by A. Hauenstein, 30 pp.  
FRENCH-PORTUGUESE, per, Boletim do Instituto de Angola, No 27, Jan-Apr 1967, pp 5-29.  
JPRS 42907

Africa  
Sociological (Contd)

Cultural Revolution in Mali Urged, 5 pp.  
FRENCH, per, L'Essor, 7 Sep 1967, pp 1,3.  
JPRS 42810

Literacy Campaign in Mali, 5 pp.  
FRENCH, per, L'Essor, 8 Sep 1967, pp 1,3.  
JPRS 42810

Cultural Development in Guinea, by Condetto  
Nenekhaly Camara, 14 pp.  
FRENCH, np, Horoya, 2 Sept 1967, pp 1 & 2;  
3-4 Sept 1967, pp 1 & 2; 6 Sept 1967, pp 1 & 2;  
and 8 Sept 1967, pp 1 & 2.  
JPRS 42953

Reform of Free Medical Care, 5 pp.  
FRENCH, np, El Moujahid, 30 Aug 1967, p. 3.  
JPRS 42857

Trade-Union Problems in Angola, by Antunes  
Valente, 22 pp.  
PORTUGUESE, per, Boletim do Instituto de  
Angola, No 27, Jan-Apr 1967, pp 77-90.  
JPRS 42907

Guinea Determined to Have Own African Culture,  
by Mamouna Toure, 5 pp.  
FRENCH, per, Horoya, 16 Sep 1967, pp 1 and 3.  
JPRS 42912

Middle East  
Economic (Contd)

Desert Economy, by Murid Yeni, 5 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 15 Sep  
1967, pp 42-45.  
JPRS 42982

UAR Economy 1956-1967, 7 pp.  
ARABIC, per, al-Ahram al Iqtisadi, 25 Sep 1967,  
pp 18-19 and 37.  
JPRS 42982

Decree of the President of the United Arab  
Republic Concerning the Temporary Application  
of the Budget of 1966-1967 for the Fiscal  
Year 1967-1968, 19 pp.  
ARABIC, per, Rabi' al Awwal, No 1356, 29 Jun  
1967, pp 1-11.  
JPRS 42934

Development of Political-Economic Relations  
Between the UAR and GDR (Part 2), 17 pp.  
GERMAN, per, Deutsche Textiltechnik, Vol 17,  
No 9, 1967, pp 539-545.  
JPRS 42884

The Turkish National Railroads (TCDD), by  
E. Strommer  
GERMAN, per, Eisenbahn, No 3, 1967, pp 52-54  
DIA LN 291-67

Steam-Turbine Locomotives of the TGOJ, by  
R. Holzinger  
GERMAN, per, Eisenbahn, No 3, 1967, pp 45-46  
DIA LN 291-67

Directory of Factories in Thonburi Registered  
According to the Factory Act, 183pp.  
THAI, rpt, Directory of Factories in Bangkok  
and Thonburi - Division of Factory Control.  
ACSI J-1812  
ID 2204009467

MIDDLE EAST

Economic

Development of Savings Deposits in UAR, 6 pp.  
ARABIC, per, Al-Ahram Al-Iqtisadi, 1 Sep 1967,  
pp 7-9.  
JPRS 42835

New Cotton Policy of the UAR, 6 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 15 Sep 1967,  
pp 6-10.  
JPRS 42982

Economic Goals of the New Budget, by Ali  
Lutfi, 8 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, 15 Aug  
1967, pp 18-19.  
JPRS 42921

Political

Reply to the Editor of Al-Ahram,  
Objective Discussion Instead of Insults and  
Double Talk, by Husayn Abd al-Raziq, 6 pp.  
ARABIC, np, Al-Jumhuriyyah, 21 Aug 1967, p. 3.  
JPRS 42861

Middle East  
Political (Contd):

Open Discussion About Socialist Young Organization, by Ahmad Faraghali, 12 pp.  
ARABIC, per, Al-Jumhuriyah, 12 Sep 1967, p 3.  
JPRS 42940

Technocrats and Social Changes in Emerging Nations, by Muhammad Anis, 6 pp.  
ARABIC, per, al-Jumhuriyah, 14 Sep 1967, p 5.  
JPRS 42940

Resolutions of 17th Session of Central Committee of Israeli CP, 10 pp.  
ARABIC, per, Al-Ittihad, 18 Aug 1967, p 2.  
JPRS 42835

New Significance of Arab Liberation Movement and the Question of Arab Unity, by Nicola Shawi, 9 pp.  
ARABIC, per, al-Nida, 19 Aug 1967, pp 3,2.  
JPRS 42744

Nimr Comments on Bakdash Article in Nidal Al-Sha'b, by Nasib Nimr, 7 pp.  
ARABIC, per, Ila-al-Aman, 3 Sep 1967, pp 3 and 7.  
JPRS 42940

Armed Conflict is the Only Path, by Nasim Manr, 6 pp.  
ARABIC, per, Ila-al-Aman, 10 Sep 1967, p 3.  
JPRS 42884

Marjan Comments on Bakdash Article in Nidal Al-Sha'b, by Badr Marjan, 7 pp.  
ARABIC, per, Ila-al-Aman, 10 Sep 1967, p 5.  
JPRS 42940

Nasib Nimr Discusses Major National and International Issues, by Nasib Nimr, 7 pp.  
ARABIC, per, Ila-al-Aman, 17 Sep 1967, p 3.  
JPRS 42940

Israel, the Policeman of Imperialism, by Fuad Mursi, 6 pp.  
ARABIC, per, Rose al-Yusuf, 26 Jun 1967, pp 10-11.  
JPRS 42921

Allenby Bridge Symbolizes First Israeli-Jordanian Agreement, by Esther Wilenska, 7 pp.  
HEBREW, per, Kol Haam, 25 Aug 1967, p 2.  
JPRS 42921

Middle East  
Political (Contd)

Criticism of Eshkol's Broad Government Policy, by Shmuel Mikunis, 7 pp.  
HEBREW, per, Kol Haam, 25 Aug 1967, p 2.  
JPRS 42921

Interview With Mikis Theodorakis Prior to Arrest, 5 pp.  
ITALIAN, per, L'Espresso, 10 Sep 1967.  
JPRS 42835

Appraisal of Resistance Prospects in Greece, by M. G., 6 pp.  
ITALIAN, per, Mondo Nuovo, No 36, 10 Sep 1967, p 14.  
JPRS 42835

Tawfik Tubi Speaks on Struggle of Israeli CP, 17 pp.  
ISRAELI, per, Zo Haderekh, 23 Aug 1967, p 4;  
30 Aug 1967, p 4.  
JPRS 42847

Geographic

River Flood in East Pakistan and Dacca Area, by F. Ishi and A. Hamamori, 17 pp.  
JAPANESE, per, Kasen, Vol 42, No 3, pp 13-15, 18-21  
DIA LN 373-67

Sociological

The Question of Modern Society, by Ahmad Baha al-Din, 5 pp.  
ARABIC, per, al-Musawwar, 11 Aug 1967, p 9.  
JPRS 42921

Ministry of Labor Decree No 49, 1967, 14 pp.  
ARABIC, per, al-Waqi'a al-Misriyyah, 19 Aug 1967, pp 2-8.  
JPRS 42982

Israeli Officials on Innovations and Challenges in Education, 6 pp.  
HEBREW, per, Lamerkav, 30 Aug 1967, p. 6.  
JPRS 42861

The Turkic Peoples, Articles from, 15 pp.  
RUSSIAN, 1963.  
ACSI J-2861  
ID 2204028867

FAR EAST

Economic

Observations on the Summer Grain Harvest in Communist China, by Lin Ch'en, 12 pp. CHINESE, per, Fei-ch'ing Yen-chiu, Vol 1, No 6, 30 Jun 1967, pp 25-30. JPRS 42830

Collection of Summer Grains, by Kuan Shan-yuan, 12 pp. CHINESE, per, Fei-ch'ing Yen-chiu, Vol 1, No 7, 31 Jul 1967, pp 17-22. JPRS 42911

Survey of Textile Industry, by Lu Yun, 11 pp. CHINESE, per, Fei-ch'ing Yen-chiu, Vol 1, No 6, Jun 1967, pp 72-78. JPRS 42911

Annual Report of Effort and Catch Statistics by Area on Japanese Long Line Fishery, 1963. JAPANESE, rpt, Apr 1966, pp 1-57. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Fisheries and Aquiculture Production Statistics for 1964. JAPANESE, rpt, Feb 1966, pp 1-31. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

The Japan-Soviet Fisheries Commission. JAPANESE, rpt, Feb 1966, 27 pp. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Regulations Pertaining to the Details of the Administrative Division and Organization of the Fisheries Agency. JAPANESE, rpt, Apr 1965. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Design of Non-Mesh-Selective Salmon Gillnets for Research Use, and Results of Experimental Operations, by T. Ishida, J. Ito. JAPANESE, per, Bull. Hokkaido Reg. Fish. Res. Lab., No 31, 1966, pp 1-10. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Far East  
Economic (Contd)

Completion of the Altitude Control Test Facility, 10 pp. JAPANESE, per, NAL News, No 85, June 1966, pp 1-4 DIA LN 355-67

A Summary of the Umeda-Doton Canal of the Osaka-Kobe Expressway, by Yoshitaro Tsuda JAPANESE, per, Road Construction, February 1966, pp 23-34 DIA LN 99-67-A

A Survey of the Construction of the Nagoya-Osaka National Highway, by Shigeharu Nambu JAPANESE, per, Road Construction, February 1966, pp 23-34 DIA LN 99-67-A

Relevant Laws, 38 pp. JAPANESE, per, Road Construction, No 222, July 1966, pp 77-90 DIA LN 99-67-C

The Highway Condition of Hokuriku Region -- The Heavy Snow in Hokuriku in January 1963, by Raizo Tsuchiya, 126 pp. JAPANESE, per, Road Construction, November 1966, pp 6-7, 8-15, 20-23, 26-32, 33-39, 42-50, 62-66, 69-75 DIA LN 732-66-B

Need for Developing the Building Materials, 7 pp. KOREAN, per, Minju Choson, 2 Aug 1967, p. 1. JPRS 42883

Proper Management of Cooperative Farm Property Urged, 9 pp. KOREAN, per, Minju Choson, 4 Aug 1967, pp 2-3. JPRS 42883

Development of Machine Industry Requires Establishment of New Factories, by Kim Hak U, 8 pp. KOREAN, np, Minju Choson, 19 Aug 1967, pp 2-3. JPRS 42856

Justification of Party Policy for Economic Construction, by Chang Pyong-gi, 8 pp. KOREAN, per, Nodong Ch'ongnyon, 4 Aug 1967, p. 2. JPRS 42883

Far East  
Economic (Contd)

Progress in the Technological Revolution,  
9 pp.  
KOREAN, per, Nodong Sinmun, 4 Aug 1967, p. 1.  
JPRS 42883

Glorious Victory of Party's Economic Line,  
by Chong Kwan-yong, 15 pp.  
KOREAN, np, Nodong Sinmun, 5 Aug 1967,  
pp 2, 3 & 4.  
JPRS 42856

Social and Economic Questions Connected with the  
Development of the National Economy of the Mon-  
golian People's Republic, by P. Nergui, 8 pp.  
MONGOLIAN, per, Ediyn Dzasgijn Asuudal, No 3,  
1967, pp 3-10.  
JPRS 43107

The Tasks of Economic Research Work, by D. Dugar,  
6 pp.  
MONGOLIAN, per, Ediyn Dzasgijn Asuudal, No 3,  
1967, pp 20-24.  
JPRS 43107

The Program of the Mongolian People's Revolu-  
tionary Party and Our Country's Industry, by J.  
Damba, 9 pp.  
MONGOLIAN, per, Ediyn Dzasgijn Asuudal, No 3,  
1967, pp 25-33.  
JPRS 43107

Methods of Management of the National Economy and  
Characteristics of Their Application, by B.  
Tsedesuren, 8 pp.  
MONGOLIAN, per, Ediyn Dzasgijn Asuudal, No 3,  
1967, pp 41-47.  
JPRS 43107

A Model of New, Fraternal Relations (1921 - 1945),  
by D. Gongor, 9 pp.  
MONGOLIAN, per, Ediyn Dzasgijn Asuudal, No 3,  
1967, pp 48-56.  
JPRS 43107

B. Baljinnyam's Speech on Preparations for 1967  
Hay Mowing Work, by B. Baljinnyam, 10 pp.  
MONGOLIAN, per, Uhen, 30 Jun 1967, p 2.  
JPRS 42737

J. Nyamaa's Speech at Second Session of People's  
Great Hural of MPR, by J. Nyamaa, 10 pp.  
MONGOLIAN, per, Uhen, 30 Jun 1967, p 3.  
JPRS 42737

Far East  
Economic (Contd)

Success and Failure in the Industrialization  
Movement, by Tran Phuong, 27 pp.  
VIETNAMESE, per, Nghien-cuu Kinh-te, No 39,  
Jun 1967, pp 10-25.  
JPRS 43102

Agricultural Changes in Liberated Zones, by Tran  
Ham Luong, 16 pp.  
VIETNAMESE, per, Nghien-cuu Kinh-te, No 39,  
Jun 1967, pp 26-33.  
JPRS 43102

Expansion of Small Industries and Handicrafts,  
by Tran Trong Hy, 14 pp.  
VIETNAMESE, per, Nghien-cuu Kinh-te, No 39,  
Jun 1967, pp 48-57.  
JPRS 43102

Increasing the Number of Crops in Lao Cai,  
by Truong Minh, 5 pp.  
VIETNAMESE, np, Nhan Dan, 10 Aug 1967,  
p 2.  
JPRS 42846

Political

Defend Chairman Mao's 'Elcom-Contend' Aim,  
10 pp.  
CHINESE, per, Ching-kang Shan, No 47, 14  
Jun 1967, p 3.  
JPRS 42887

Along the Socialist or the Capitalist Road?  
20 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967,  
pp 4-13.  
JPRS 42866

Completely Smash the Bourgeois Headquarters.  
8 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967,  
pp 14-17.  
JPRS 42866

Resolution of 8th Plenary Session of 8th  
Central Committee of C.P.C. Concerning the  
Anti-Party Clique Headed by Peng Teh-huai,  
6 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967,  
pp 18-20.  
JPRS 42866

Far East  
Political (Contd)

From the Defeat of Peng Teh-Huai To the Bankruptcy of China's Khrushchev, 7 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 21-24.  
JPRS 42866

Scheming to Betray Party Is Aimed at Usurping Party, 8 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 25-28.  
JPRS 42866

The Bankruptcy of China's "Devotee of Parliament", 7 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 29-32.  
JPRS 42866

Messate Saluting Chairman Mao Tse-tung, 7 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 35-38.  
JPRS 42866

Socialist Enterprises Can Never Be Allowed to Be Dragged Astray Onto the Road of Capitalism, 8 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 39-42.  
JPRS 42866

Thorough Criticism of the "Three-Self, One-Guarantee" System Geared to Restoration of Capitalism, 8 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 43-46.  
JPRS 42866

Angry Rebuke of the Capitulationist Program of the Top Party Person in Authority Taking the Capitalist Road, 8 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 47-50.  
JPRS 42866

Lessons of the Arab War against Aggression, by Chou T'ien-ch'ih, 12 pp.  
CHINESE, per, Hung-ch'i, No 13, 17 Aug 1967, pp 51-57.  
JPRS 42866

Far East  
Political (Contd)

Wu Lan-Fu's Secret Report, by Wu Lan-Fu, 10 pp.  
CHINESE, per, Kung-jen Chan-pao, No 16-17, 29 Jun 1967, pp 3-4.  
JPRS 42933

Great Strategic Thought of Chairman Mac, 5 pp.  
CHINESE, per, Shou-tu Hung-wei Ping, Nos 34-35, 7 Jun 1967, p 1.  
JPRS 42887

Cultivation of Socialist Patriotism, by Min Hun, 10 pp.  
KOREAN, np, Kyowon Sinmun, 16 Aug 1967, pp 2-3.  
JPRS 42856

Follow Ch'o'llima Movement in Building Socialism, by Yun Nae Kil, 11 pp.  
KOREAN, np, Minju Choson, 22 Aug 1967, pp 2 & 3.  
JPRS 42856

Support for Party Policy Stressed, 9 pp.  
KOREAN, per, Nodong Ch'ongnyon, 2 Aug 1967, p. 1.  
JPRS 42883

Chollima Movement for Communist Indoctrination, 11 pp.  
KOREAN, per, Nodongja Sinmun, 1 Aug 1967, pp. 3-4.  
JPRS 42883

County Plays Important Role in Socialist Construction, by Kim Ki-yong, 13 pp.  
KOREAN, per, Nodong Sinmun, 6 Aug 1967, pp 2-3.  
JPRS 42883

N. Jagbaral's Speech at Forty-Sixth Anniversary of the Mongolian People's Revolution, N. Jagbaral, 9 pp.  
MONGOLIAN, per, Ulan, 11 Jul 1967, p 2.  
JPRS 42737

Building Up the Party Through Achievement Report and Evaluation Program, by Quang Hong, 6 pp.  
VIETNAMESE, np, Nhan Dan, 27 Aug 1967, p. 2.  
JPRS 42873

Far East  
Political (Contd)

Expanding the Program of Criticizing Chi Bo and Party Leaders by the Masses, by Vu Oanh, 5 pp.  
VIETNAMESE, np, Nhan Dan, 29 Aug 1967, p. 2.  
JPRS 42873

Ton Duc Thang's Report on NLFSV Political Manifesto, by Ton Duc Thang, 7 pp.  
VIETNAMESE, per, Nhan-dan, 8 Sep 1967, pp 1 and 2.  
JPRS 42997

Pham Van Dong's Speech on 22nd Anniversary of Founding of the DRV, by Pham Van Dong, 8 pp.  
VIETNAMESE, np, Thudo Hanoi, 1 Sept 1967, pp 1-2.  
JPRS 42846

Military

Initial Victories in Local Military Activities in Military Region 3, by Le Hong Khe, 6 pp.  
VIETNAMESE, np, Nhan Dan, 13 Aug 1967, p. 3.  
JPRS 42846

Haiphong Workers go to Front Lines, by Phan Huynh, 5 pp.  
VIETNAMESE, per, Quan-doi Nhan-dan, 16 Aug 1967, p 2.  
JPRS 42888

Fight America, Save the Country, 6 pp.  
VIETNAMESE, per, Quan-doi Nhan-dan, 19 Aug 1967, pp 1 and 2.  
JPRS 42888

Sociological

Liu Shao-Ch'i's 'Sixty Points on Higher Education', by Liu Shao-chi, 7 pp.  
CHINESE, per, Ching-kang Shan, No 47, 14 Jun 1967, p 4.  
JPRS 42887

North Vietnamese Red Cross Official Interviewed, by Fadolein Riffaud, 5 pp.  
FRENCH, per, l'Humanite Dimanche, 24 Sep 1967, pp 10-11.  
JPRS 42998

Far East  
Sociological (Contd)

Revolutionary Literary Creation, by Om Ho-sok, 10 pp.  
KOREAN, np, Munhak Sinmun, 25 July 1967, p. 1.  
JPRS 42883

The Arts Serve Party Policy, by Kil Su-am, 9 pp.  
KOREAN, np, Munhak Sinmun, 1 Aug 1967, p. 1.  
JPRS 42883

Great Role and Capability of South Vietnamese Women in Political and Armed Struggle, by Nguyen Thi Dinh, 6 pp.  
VIETNAMESE, np, Nhan Dan, 6 Aug 1967, pp 1-3.  
JPRS 42846

Increasing the Female Labor Force, by Le Chan Phuong, 5 pp.  
VIETNAMESE, np, Nhan Dan, 10 Aug 1967, p. 3.  
JPRS 42846

Change of Calendar System, by Nguyen Zien, 5 pp.  
VIETNAMESE, per, Nhan Dan, 10 Sep 1967, p 2.  
JPRS 42998

Ninh Binh Women Participate in People's Councils, by Mai Hien, 5 pp.  
VIETNAMESE, per, Quan Doi Nhan Dan, 26 Aug 1967, p 4.  
JPRS 42930

LATIN AMERICA

Economic

DNPVN Report; Interior Navigation, by A. H. Furtado 6 pp.  
PORTUGUESE, per, Portos e Navios, Vol 10, No 91, March 1967, pp 13-24  
DIA LN 429-67

Venezuelan and Arabian Oil Interests Clash, by Carlos Alfinger, 6 pp.  
SPANISH, per, Bohemia, 1 Oct 1967, pp 33-35 and 62.  
JPRS 42954

Latin America  
Economic (Contd)

Peru's Forestry Resources Regulated, 5 pp.  
SPANISH, np, Oiga, 8 Sept 1967, pp 28 & 29.  
JPRS 42954

Industrial Development Projects in Tolima, by  
Hector Troyano, 5 pp.  
SPANISH, np, El Siglo, 6 Sept 1967, p. 9.  
JPRS 42954

Political

Information to the Nation, 1966, by Roldos Ga-  
Garces, 55 pp.  
SPANISH, per, Boletin de la Oficina Sanitaria  
Panamericana, February 1967, pp XIII-XIX, 15-1  
20-31, 32-38, 44-51, 64-66, 69-70, 74-79, 85-8  
92-109, 84  
DIA LN 352-67

Interview with Stokely Carmichael, by  
Santiago Pena, 8 pp.  
SPANISH, per, Oiga, 22 Sept 1967, pp 20-22 & 34.  
JPRS 42966

Chilean CP Official Addresses Party Conference,  
19 pp.  
SPANISH, per, El Siglo, 11 Sep 1967, pp 4-5.  
JPRS 42889

Military

Characteristics of the 60-mm Mortar, Commando  
Model.  
SPANISH, per, Characteristicas Del Mortero  
Cal. 60 mm Tipo Comando, Nov 1965, pp 1-4.  
\*ACSI J-3497  
ID 2902001966

The Armed Struggle in Latin America, by Carlos  
Altamirano.  
SPANISH, per, La Lucha Armada en America Latina  
por el senador Carlos Altamirano, No 31,  
2nd half of June 1967.  
\*ACSI J-3501  
ID 2204049067

60-mm Infantry Mortar M-66.  
SPANISH, per, Mortero Cazador M66 Cal 60 mm,  
Aug 1966, pp 3, 5-15.  
\*ACSI J-3497  
ID 2902001966

Latin America  
Geographic

The Land: The Argentinian Gran Chaco, 13 pp.  
SPANISH, per, Postas Argentinas, No 319, March-  
April 1967, pp 3-9  
DIA LN 348-67

Sociological

Havana University Students Get Free Study  
Materials, by Pedro Rojas, 5 pp.  
SPANISH, np, Granma, 31 Aug 1967, p. 12.  
JPRS 42950

Aeronautics

Stand for Model Testing of Jet-Engine Ejector Nozzles, by Yu. N. Nechaev and V. M. Zhilin. RUSSIAN, per, Izobreteniya, Promyshlennye Obraztsy, Tovarnye Znaki, No 3, 1967, p 11. Dept of Navy/ APL/JHU T-2055

Device for Simulating Air Flow around a Wing of Finite Span, by G. P. Dianov. RUSSIAN, per, Izobreteniya, Promyshlennye Obraztsy, Tovarnye Znaki, No 3, 1967, pp 136. \*Dept of Navy/ APL/JHU J-1063

Calculation of Hypersonic Axisymmetric Jets, by V. N. Gusev. RUSSIAN, per, Akad. Nauk SSSR, Izvestiya, Mekhanika Zhidkosti i Gaza, No 1, 1967, pp 107-109. Dept of Navy/ APL/JHU TG 230-T526

The Flight of Soyuz 1. RUSSIAN, per, Pravda, Vol 24, No 4, 1967, Vol 25, No 4, 1967. RAE Library Press 12

Lock for the Pilot Chute of the Cargo Parachute System. RUSSIAN, Patent No 190794, 15 Nov 1967. \*ACSI J-3456 ID 2204046967

Highly Sensitive Accelerometer, by M. Gay. FRENCH, rpt, Paper Presented at the 12th International Astronautical Congress, 9-15 October in Madrid. Office National d'Etudes et Recherches Aeronautiques, Paris, Report CNERA TP-393, pp 1-11. NASA TT F-11,185

German Aircraft Designer Interviewed in Egypt, 9 pp. GERMAN, per, Der Spiegel, No 38, 11 Sep 1967, pp 126-129. JPRS 42835

Measurements of Section Lift Coefficient in a Two-Dimensional Smoke Wind-Tunnel, by M. Yamana. JAPAN, per, J. Japan Soc. Aeronaut. Space Sci., Vol 13, No. 141, 1965, pp 321-326. RAE 1220

Agriculture

The Use of Azotobacterin in the Growing of Tomatoes in "Peat Blocks", by Kh. G. Zinov'eva and F. E. Volkova. RUSSIAN, per, Mikrobiologicheskii Zhurnal, Vol 19, No 2, 1957. pp 62-63. NLL RTS 3550

Universal Scheme for Working Grain Into Starch Products, by N. N. Tregubov. RUSSIAN, per, Sakharovaya Promyshlennost', Vol 36, No 7, 1962, pp 55-58. NLL RTS 3640

Problems of Spare-Parts Supply and Reconditioning in Soviet Agriculture, by I. Khokhlov, 5 pp. RUSSIAN, per, Sel'skaya Zhizn', 23 Aug 1967, p 2. JPRS 42885

Application of Fermentative Preparations to Improve the Quality of Bread Made of Wheat Flour of Inferior Quality, by R. K. Tokareva. RUSSIAN, per, Trudy Tsentral. Nauchn. - Issled. Instituta Khibropecheniya Prei., No 10, 1963, pp 138-147. NLL RTS 3274

Protecting Packaged Products against Micro-organisms by Fumes of Antifungal Compound, by Miroslav Bomar. CZECH, per, Obaly, Vol XIII, No 3, May/June 1967, pp, 75, 76, 77, 78. ACSI J-3291 ID 2204040467

Crop and Weather Report, July 1967, by Dr. D. Krumbiegel, 5 pp. GERMAN, per, Feldwirtschaft, No 9, Sept 1967, pp 479-480. JPRS 42882

Scientific Agriculture (Contd)

Shortcomings in Cuba's Livestock Industry, by Irma Caballero and Gabino Hernandez, 5 pp. SPANISH, per, Granma, 16 Aug 1967, p 6. JPRS 42741

Experimental and Industrial Results of Dehydration Fruits and Vegetables, by Ya. T. Abolin, E. Ja. Jurewiz, et al. GERMAN, per, Die Lebensmittel Industrie, No 7, 1967, pp 263-265. \*ACSI J-3515 ID 2204048467

Researches on the Oversummering, Overwintering, and Source of Primary Infection of Stripe Rust in Wheat and Barley. JAPANESE, rpt, undated, 451 pp \*ACSI J-3383 ID 2222183066

Studies on the Forecasting Method of the Rice Blight by Means of Chemical Analysis of Leaves, 40 pp. JAPANESE, rpt, Report by Plant Protection Section, Bureau of (Japanese) Agricultural Administration Japanese Military of Agriculture and Forestry, Apr 1963. ACSI J-3191 ID 2204036967

Influence of Contracting on Changes in Farm Production Structure, by Wladzimierz Pychtin, 7 pp. POLISH, per, Nowe Rolnictwo, No 15, 1-15 Aug 1967, pp 24-26. JPRS 42932

Astronomy & Astrophysics

II-Functions in the Theory of Resonance Radiation Transfer, by V. V. Ivanov, D. I. Nagirner. RUSSIAN, per, Astrofizika, Vol 1, No 2, 1965, pp 143-156. NASA TT F-11,108

Scientific Astronomy & Astrophysics (Contd)

Non-Uniformity in the Rotation of the Earth According to the Data of Astronomic Observations for the Period of 1955.5-1965.0, by N. S. Sidorenko. RUSSIAN, per, Astronomicheskiy Zhurnal, Vol 44, No 3, 1967, pp 650-662. \*ACIC TC-1319

On the Possibility of Determining the Absolute Elevations of the Points of Lunar Surface from the Observations on the Earth, by A. A. Gurstein. RUSSIAN, per, Astronomicheskiy Zhurnal, Vol 44, No 3, 1967, pp 672-674 \*ACIC TC-1318

Atlas of the Reverse Side of the Moon, Part II. by B. N. Antonov. RUSSIAN, bk, Atlas Obratnoy Storony Luny, Chast II, 1967, pp 1-236. \*NASA TT F-514

Physics of the Planets, by V. I. Moroz. RUSSIAN, bk, Fizika Planet, 1967, pp 1-496. \*NASA TT F-515

Surface Layer of the Moon, by A. A. Gurshtein. RUSSIAN, per, Priroda, Vol 6, No 6, 1967, pp 3-15. NASA TT F-11,210

Observations of the Moon, Mars, Uranus and the Stars. Optical Properties of Plants, by G. A. Tikhov, RUSSIAN, per, Trudy Sektora Astrobotaniki AN Kazakh. SSR, Vol 8, 1960. NLL 6015.49 (419)

The Contemporary Situation and Some Forthcoming Problems in Stellar Dynamics, by G. G. Kuzmin. RUSSIAN, per, Trudy Astrofiz. Instituta Akademii Nauk Kaz. SSR, No 5, 1965, pp 11-19. NLL RTS 3425

Collection of Articles. 231 pp. RUSSIAN, bk, Vestnik Leningrad Universitet. Seriya Matematiki, Mekhaniki i Astronomii, No 1, 1964, pp 5-176. P100291967-V FTD-NT-64-356

Scientific  
Astronomy & Astrophysics (Contd)

Problems of Astrometry, by Ye. P. Fedorov.  
RUSSIAN, bk, Voprosy Astrometrii, 1966,  
pp 1-148.  
NASA TT F-454

Problems of Astrophysics, by A. F. Bogorodskiy.  
RUSSIAN, bk, Voprosy Astrofiziki, 1966,  
pp 1-208.  
NASA TT F-455

Four-Dimensional Hamiltonian Formalism of  
Ray Tracing in an Anisotropic Medium, by  
L. G. Bossy.  
FRENCH, rpt, Contribution No 3 of the George  
Lemaitre Institute of Astronomy and Geophysics,  
Catholic University of Louvain, Nuclear Physics  
Centre, Heverle-Louvain, 1967, pp 1-14.  
NASA TT F-11,188

Statute of the Polish Society of Amateur  
Astronomers, 15 pp.  
POLISH, per, Urania, No 7/8, Jul-Aug 1967,  
pp 1-12.  
JPRS 42841

Scientific  
Atmospheric Science (Contd)

The Spread of Moving Disturbances and Their  
Influence on the Altitude-Frequency Character-  
istics of the Ionosphere, by G. I. Grigor'ev.  
RUSSIAN, per, VUZ, Izv., Radiofizika,  
Vol 10, No 4, 1967, pp 466-472.  
Dept of Navy/ APL/JHU T-2044

On the Role of Corpuscular Radiation in the  
Formation of the Lower Ionosphere, by V. F.  
Tulinov  
RUSSIAN, per, Kosmicheskie Issledovaniya, Vol  
5, No 2, 1967, pp 240-244.  
Dept of Navy/ APL/JHU T-2042

Cosmic Rays and Problems of Space Physics.  
RUSSIAN, bk, Kosmicheskie Luchi i Problemy Kos-  
mofiziki, 1965.  
NASA TT F-428  
TT 67-51365

The Substantiation of Measurement Accuracy of  
the Temperature and Air Moisture Content in the  
Free Atmosphere, by L. T. Matveyev.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6,  
1967, pp 21-28.  
JPRS 42636

Fluctuation Regularities of the Altitude of the  
Lowe Cloud Boundary, by V. S. Kozharin.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6,  
1967, pp 29-35.  
JPRS 42636

The Hail Distribution Function, by  
M. T. Abshayev, O. I. Chepovskaya.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6,  
1967, pp 36-40.  
JPRS 42636

Activity of Tradewind Fronts Over the Atlantic  
Ocean, by I. V. Kool'.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6,  
1967, pp 50-54.  
JPRS 42636

Daily Maxima of Precipitation in Cuba, by  
I. I. Trusov.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6,  
1967, pp 70-73.  
JPRS 42636

Atmospheric Sciences

Some Results of Meteorological and Aerological  
Investigations in Antarctica During the Period  
1956-1966, by I. M. Dolgin, 28 pp.  
RUSSIAN, per, Information Bulletin of the Soviet  
Antarctic Expedition, No 57, 1966, pp 24-59.  
P500317567  
Dept of Navy/NIC Tr No 2466

Clear-Air Turbulence at Altitudes of 6-12  
Kilometers, by N. K. Vinnichenko.  
RUSSIAN, per, AN SSSR, Izv., Fizika Atmosfery  
i Okeana, Vol 2, No 1, 1966, pp 1135-1141.  
Dept of Navy/ APL/JHU T-2045

Airplane Measurement of Gloval Fission Fragment  
Containation Territory by Determining the Gamma  
Ray Spectrum.  
RUSSIAN, per, USSR Izvestiya Fizika Zemli, No  
2, 1967.  
\*Dept of Navy ONI

Scientific  
Atmospheric Sciences (Contd)

On the Spectral Characteristics of Large-Scale Turbulence in the Free Atmosphere, by G. P. Il'yin, P. A. Rublev. RUSSIAN, per, Meteorologiya i Gidrologiya, No 6, 1967, pp 104-105. JPRS 42636

Hydrometeorological Service of the Mongolian People's Republic, by D. Tuvdendorzh. RUSSIAN, per, Meteorologiya i Gidrologiya, No 6, 1967, pp 108-110. JPRS 42636

Connection Between Magnetic Storms and Atmospheric Circulation, by B. A. Yakovlev. RUSSIAN, per, Trudy Moskva Gidrometeoizdat Pervaya Nauchnaya Konferentsiya po Obshchey Tsirkulyatsii Atmos. 1960, 1962, pp 142-148. \*FTD-HT-23-1473-67

A Study of the Thermal Low Over Southwest China and Related Forecasting Problems, by Li Guowen. CHINESE, rpt, Acta Meteorologica Sinica, Vol 35, No 2, May 1965, pp 126-131. AFCRL Tr-Wmm-66-141

Stratosphere, by T'ao Shih-yen, 17 pp. CHINESE, per, Ti-11, No 2, Mar 1965, pp 52-59. JPRS 42845

Typhoon, by T'ao Shih-Yen, 20 pp. CHINESE, per, Ti-11, No 3, May 1965, pp 114-120. JPRS 42845

Mathematical Interrelationships in the Size Distribution of Atmospheric Aerosoles Above the Continent, by C. Junge. GERMAN, per, Bericht des Deutschen Wetterdienstes, U.S. Zone Bad Kissingen, No 35, 1951, pp 261-277. NASA TT F-11,091

Meteorology, by Kurt Dethloff, 12 pp. GERMAN, per, Sreuermannagast, Deutscher Militaer-verleg, 1965, pp 199-216. Dept of Navy QNI tr 2399

Wave Propagation in the m-to-cm Range, With Special Attention to Tropospheric Scatter, by H. D. Seehars. GERMAN, rpt, Die Wellenausbreitung im m-bis-cm-Bereich Unter Besonderer Beruecksichtigung Troposphaerischer Streuprozesse, 1966. \*Dept of Navy NRL

Scientific  
Biological & Medical Sciences

The Effect of Morphine and N-allyl-3-hydroxy Morphinan, Alone and In Combination, On Some Functions and Metabolites of the Brain of White Mice, by C. -J. Estler. Language unknown, per, J. Neurochem, Vol 9, 1962, pp 219-225. HEW NIH 9-21-67

Introduction to Medical Cybernetics, by V. V. Parin, R. M. Bayevskiy. RUSSIAN, bk, 1966, pp 1-298. NASA TT F-459

The Effect of General Vertical Vibration of Functional Condition of Vestibular Apparatus in Guinea Pigs, by Z. I. Apanasenko. RUSSIAN, per, Akademiya Nauk SSSR, Institut Biologicheskoy Fiziki, 1964, pp 76-84. \*FTD-HT-23-1474-67

The Reproduction and Development of Far-Eastern Flounders, by T. A. Pertseva-Ostroumova. RUSSIAN, per, Akad. Nauk SSSR, Institut Okeanologii, 1961, 484 pp Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Opening of the Plenum, by B. V. Petrovskiy, 6 pp. RUSSIAN, mono, Alloplastika v Khirurgii i Travmatologii, 1965, pp 5-9. JPRS 43004

Alloplastic Surgery, by B. V. Petrovskiy, 15 pp. RUSSIAN, mono, Alloplastika v Khirurgii i Travmatologii, 1965, pp 9-18. JPRS 43004

Alloplasty in Traumatology and Orthopedics, by M. V. Volkov, 15 pp. RUSSIAN, mono, Alloplastika v Khirurgii i Travmatologii, 1965, pp 19-29. JPRS 43004

Our Experience in Using Synthetic Polymers in Surgery, by O. P. Chukhriyenko, 17 pp. RUSSIAN, mono, Alloplastika v Khirurgii i Travmatologii, 1965, pp 40-53. JPRS 43004

State and Prospects of Using Contemporary Alloplastic Materials in Surgery, by N. G. Anan'yev, A. M. Gesalevich, 7 pp. RUSSIAN, mono, Alloplastika v Khirurgii i Travmatologii, 1965, pp 56-61. JPRS 43004

Scientific  
Biological & Medical Sciences (Contd)

A Pharmacological Study of Rubomycin, by L. E. Gol'dberg.  
RUSSIAN, per, Antibiotiki, Vol 11, No 2, 1966, pp 126-133.  
HEW NIH 9-11-67

Histopathological Changes in the Organs and Tissues of Experimental Animals Treated With Rubomycin, by I. P. Belova.  
RUSSIAN, per, Antibiotiki, Vol 11, No 2, 1966, pp 133-139.  
HEW NIH 9-4-67

The Physicochemical Characteristics of Rubomycin, An Antitumorigenic Antibiotic Produced by Act. Coeruleorubidus, by M. G. Brazhnikova.  
RUSSIAN, per, Antibiotiki, Vol 11, No 9, 1966, pp 763-767.  
HEW NIH 9-8-67

Systematic Position, Variability, and Antibiotic Properties of the Producer of the Anti-Tumor Antibiotic Rubomycin, by T. P. Preobrazhenskaya.  
RUSSIAN, per, Antibiotiki, Vol 11, No 10, 1966, pp 867-872.  
HEW NIH 9-10-67

Selection of New Natural Inhibitors of Immunogenesis, by V. A. Shorin, et al.  
RUSSIAN, per, Antibiotiki, Vol 11, No 11, 1966, pp 963-967.  
HEW NIH 9-14-67

Changes in the RNA Content and the Alkaline Phosphatase Activity in the Nucous Membrane of the Small Intestine of Albino Rats and Rabbits in the Early Postnatal Period, by R. A. Brodskii.  
RUSSIAN, per, Arkhiv Anatomii, Gistologii i Embriologii, Vol 42, No 3, 1962, pp 92-102.  
NLL RIS 3321

Thermodynamics of Living Systems, by A. Ya. Nikolayev.  
RUSSIAN, per, Biofizika, No 11, 1966, pp 551-554.  
P911339367  
AEC UCRL-TRANS-10113

Biophysics of Ultrasound, by I. E. El'piner.  
RUSSIAN, bk, Biofizika Ul'trazvuka, 1969.  
Plenum Press

Scientific  
Biological & Medical Sciences (Contd)

Study of Effect of Certain Potential Anti-metabolites of Mevalonic Acid on the Biosynthesis of Cholesterol in Rat Liver, by A. N. Klimov, et al.  
RUSSIAN, per, Biokhimia, Vol 32, No 1, 1967, pp 88-92.  
HEW NIH 9-15-67

The Dynamics of Achene Germination in Reciprocal Strawberry Hybrids, by T. S. Fadeeva and A. I. Dyatlova.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 47, No 8, 1962, pp 1190-1194.  
NLL RIS 3001

The Application of the Carpological Method to Taxonomy of the Family Gesneriaceae Dum, by L. I. Ivanina.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 50, No 1, 1965, pp 29-43.  
NLL RIS 3034

The Antigenicity of the Desoxyribonucleic Acid of Bacteriophages, by Z. I. Borishpolets, et al.  
RUSSIAN, per, Byulleten' Eksperimental' noy Biologii i meditsiny, No 10, Oct 1966.  
ACSI J-3290  
ID 2294040367

The Biology of Perccottus glebbi, Dub. (Electridae) and Prospects for Its Use in Control of Japanese Encephalitis and Malaria, by V. S. Kirpichnikov.  
RUSSIAN, per, Byulleten' Moskovskogo Obshchestva Ispytatelej Prirody. Otdel. Biologicheskii, Vol 50, 1945, pp 14-27.  
NLL RIS 3143

A Study of the Atrypids of the Kusnetsk and Minusinsk Basins, by R. E. Alekseeva.  
RUSSIAN, per, Devonskie Atrypidy Kusnetskogo i Minusinskogo Bassejnov i Vostochnogo Sklona Severnogo Urala, 1962, pp 5-32, 90-91, 143-144, 150-151, 157-158, 170-185.  
NLL 3030

Concerning the Structure and Development of Calcareous Corpuscles in Tapeworms, by E. D. Logachev.  
RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 80, No 4, 1951, pp 693-696.  
HEW NIH 9-26-67

Concerning the Classification Position of Ankyrotyle Bicalense Wlasenko, by O. N. Bauer.  
RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 59, No 2, 1948, pp 383-386.  
NLL RIS 3394

Scientific  
Biological & Medical Sciences (Contd)

The Development of the Epithelial Lining of the Oesophagus of Domestic Hens, by G. S. Kvinikidze.  
RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 122, No 2, 1958, pp 304-307.  
NLL RTS 3189

Hypothalamic Regulation of the Intermediate Lobe of the Hypophysis, by A. A. Voitkevich.  
RUSSIAN, per, Doklady Akad. Nauk SSSR, Vol 138, No 3, 1961, pp 710-713.  
NLL RTS 2964

A Survey of Fish Leeches (Hirudinea, Piscicolidae) of the Northern Seas of the USSR, by V. M. Epshteyn.  
RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 141, No 6, 1961, pp 1508-1511.  
NLL RTS 3072

Reaction of Single Neurons of the Optic Lobes of the Frog's Brain to Changes in the Duration of Photic Stimulation, by L. I. Mkrtchyan and V. G. Samsonova.  
RUSSIAN, per, Doklady Akad. Nauk SSSR, Vol 161, No 5, 1965, pp 1242-1245.  
NLL RTS 3158

The Influence of Dissolved Oxygen on the Development of Blue-Green Algae, by M. V. Gusev  
RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 147, No 4, 1962, pp 947-950.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Development of Experimental Atherosclerosis Prevented by Biotin, by O. K. Dokusova, et al.  
RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 172, No 6, 1967, pp 1454-1456.  
HEW NIH 9-27-67

Elements of the Theory of Random Pulse Trains, by N. N. Sedyakin.  
RUSSIAN, per, Elementy Teorii Sluchaynykh Impul'snykh Potokov, 1965.  
\*ACSI J-3661  
ID 2204052167

On the Distribution of Tellurium in the Organism and Its Excretion, by S. E. Sandratetskaya and G. N. Krassovskii.  
RUSSIAN, per, Gigiena i Sanitariya, Vol 25, No 7, 1963, pp 92-95.  
NLL RTS 3218

Scientific  
Biological & Medical Sciences (Contd)

Method for the Determination of Lead in Urine Using Ion Exchange and the New Reagent Sulpharsazan, by G. A. Sereda and A. S. Vorontsova.  
RUSSIAN, per, Gigiena Truda i Professional'naya Zabolevaniya, Vol 8, No 2, 1964, pp 55-57.  
NLL RTS 2983

Ten Years of Biological Investigations of the Soviet Antarctic Expedition (1956-1966), by A. P. Andriyashev.  
RUSSIAN, per, Information Bulletin of the Soviet Antarctic Expedition, No 57, 1966, pp 120-127.  
PS00316967

Dept of Navy/ NIC Tr No 2467

Some Aspects of Prophylaxis of Mountain Sickness at Vostok Station, by A. Ya. Shamis, N. I. Markarov.  
RUSSIAN, per, Information Bulletin of Soviet Antarctic Expedition, No 62, 1967, pp 80-83.  
\*Dept of Navy ONI

Problems of Immunity and Production of Bacterial Preparates.  
RUSSIAN, per, Institute of Vaccination and Serums, Vol 17, 1961.  
\*Dept of Navy ONI

Some Data on the Zooplankton of the West Coast of South Sakhalin, by L. A. Ponomareva.  
RUSSIAN, per, Issledovaniya Dal'nevostochnykh Morey, IV, 1959, pp 47-57.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Food Selectivity of Calanus Helgolandicus (Claus), by T. S. Petipa.  
RUSSIAN, mono, Issledovaniya Planktona Chernogo i Azovskogo Morei, 1965, pp 102-110.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Tryptophan Biosynthesis by Micro-Organisms, by E. L. Ruban and L. B. Lobyreva.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR Seriya Biologicheskaya, Vol 30, No 2, 1965, pp 243-249.  
NLL RTS 3155

Food of Fur Seals in the Western Part of the Pacific Ocean, by G. K. Panina.  
RUSSIAN, per, Izvestiya Tikhookeanskogo N.-I., Instituta Rybnogo Khozyaistva i Okeanografii (TINRO), Vol 58, 1966, pp 23-40.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

The Interrelations of Sea Lions and Fur Seals on Common Breeding Rookeries, by A. N. Belkin.  
RUSSIAN, per, Izvestiya Tikhookeanskogo N.-I.,  
Instituta Rybnogo Khozyaistva i Okeanografii  
(TINRO), Vol 58, 1966, pp 49-68.

Dept of Interior

Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Summer Distribution, Stocks, Prospects for Commercial Utilization and Certain Features of the Biology of Sea-Lions Inhabiting the Kurile Islands, by A. N. Belkin.

RUSSIAN, per, Izvestiya Tikhookeanskogo N.-I.,  
Instituta Rybnogo Khozyaistva i Okeanografii  
(TINRO), Vol 58, 1966, pp 69-95.

Dept of Interior

Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On Roentgenological Characteristic of Lobus Asyogs, by A. Ya. Loginova.  
RUSSIAN, per, Kazanskii Meditsinskii Zhurnal,  
Vol 3, 1962, pp 50-52.  
NLL RIS 3552

New Polyamides in Fibers Based on Omega-Amino Acids and Containing Cyclohexane Rungs in the Basic Chain, by R. S. Muromova.  
RUSSIAN, per, Khimicheskiye Volokna, No 4, Jul-Aug 1967, pp 69-73.

\*ACSI J-3721  
ID 2204053167

Study of the Cumulative Effect of Impact Accelerations, by S. A. Gozulov.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 22-26.  
NASA TT F-11,134

Certain Aspects Concerning Oxygen Metabolism of the Body Exposed to Prolonged Accelerations, by Ye. I. Sorokina.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 26-30.  
NASA TT F-11,135

The Question of Improving Some Polyvinyl Chloride Polymers and Method of Decreasing Their Toxicity, by G. M. Gorbai, V. D. Yablochkiu.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 47-51.  
\*FTD-HT-23-1464-67

Scientific  
Biological & Medical Sciences (Contd)

Extremal Factors of Long-Term Space Flight and Health Requirements for Spacecraft Crews, by P. V. Buyanov, V. G. Terent'yev.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 52-54.  
NASA TT F-11,136

Study of the Work and Rest Cycles of Tests Subjects Exposed to Relative Isolation, by N.N. Gurovskiy.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 54-59.  
NASA TT F-11,137

Study of Sleep Characteristics Under Conditions of Simulated Manned Spaceflight, by V. I. Myasnikov,  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 59-64.  
NASA TT F-11,138

Nyctometric Studies and the Effect of Vestibular Excitation on the Dark Adaption, by T. A. Petrova, et al.  
RUSSIAN, per, Kosmicheskaya Biologiya i Meditsina, Vol 1, No 2, 1967, pp 82-86.  
NASA TT F-11,143

Urgent Problems of Prosthetics, by V. Barybin.  
RUSSIAN, per, Meditsinskaya Gazeta, No 47, 1967, p 2.  
\*Dept of Navy/APL/JHU J-1079

Medical Geography of Tropical Countries, by S. A. Kovalev, et al.  
RUSSIAN, rpt, Meditsinskaya Geografiya Tropicheskikh Stran, 1965, 224 pp.  
\*ACSI J-3593  
ID 2204050567

Epidemiological Studies on Malaria in North Vietnam, Report No. 4, Malariaological Division of North Vietnam by Regions, by A. Ia. Lysenko, et al.  
RUSSIAN, per, Med. Parazit, Vol 34, 1955, pp 189-94.  
Dept of Navy 1210

Analysis of Systems for Controlling Administration of an Aerosol to a Patient, 10 pp.  
RUSSIAN, per, Meditsinskaya Promstolnost SSSR, No 8, Aug 1965, pp 8-14.  
ACSI J-3197  
ID 2204037567

Scientific  
Biological & Medical Sciences (Contd)

New Anesthetic Apparatus: "Polynarkon," "Narkon-P," "Narkon," by A. S. Perel'muter, L. A. Kovsharova, 7 pp.  
RUSSIAN, per, Meditsinskaya Tekhnika, No 4, 1967, pp 13-18.  
JPRS 42902

New Industrially Produced Apparatus, 9 pp.  
RUSSIAN, per, Meditsinskaya Tekhnika, No 4, 1967, pp 21-26.  
JPRS 42902

Anesthesia in Surgical Abortion, by Z. M. Dabamalova and B. A. Didovich.  
RUSSIAN, per, Meditinskii Zhurnal Uzbekistana, Vol 1, 1964, pp 11-13.  
NLL RTS 2702

On Application of Polymers to Lessen the Swelling of Fish During the Storage in Chilled Sea Water and Brine, by F. P. Sidelkovskaya, A. V. Terentyev.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 87-92.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Virulence and Effectiveness of a Culture of the Rust Parasite *Darluca Filum* (Biv) Cast by N. S. Fedorinchik.  
RUSSIAN, per, Mikrobiologiya, No 6, 1952, pp 711-717.  
\*ACSI J-3521  
ID 2204048967

Comparative Toxicity of Heavy Metal Ions for Some Microorganisms, by Z. A. Avakyan, 6 pp.  
RUSSIAN, per, Mikrobiologiya, No 3, 1967, pp 446-449.  
ACSI J-3461  
ID 2204047167

On a Mechanism of Fungicidal Action of Surface-Active Agents, by S. S. Shroyev, N. P. Yelinov.  
RUSSIAN, per, Mikrobiologiya, No 3, 1967, pp 451-455.  
\*ACSI J-3460  
ID 2204047067

Genetic Transformation of Microorganisms, by N. Gol'dfarb, 2 pp.  
RUSSIAN, per, Mikrobiologiya, No 3, 1967, pp 554-555.  
ACSI J-3463  
ID 2204047367

Scientific  
Biological & Medical Sciences (Contd)

Original Structure of DNA, by B. F. Vanyushin, 2 pp.  
RUSSIAN, per, Mikrobiologiya, No 3, 1967, p 558.  
ACSI J-3464  
ID 2204047467

Physico - Chemical and Histological Features of Meat Frozen by the Accelerated Method, by S. Il'chenko.  
RUSSIAN, per, Miasnaya Industriya, No 7, 1967, pp 27-30.  
\*ACSI J-3718  
ID 2204052867

Self-Regulation of Higher Nervous Activity, by A. Krauklis, 8 pp.  
RUSSIAN, per, Nauka i Tekhnika, No 3, Mar 1967, pp 6-9.  
JPRS 42927

Advances in Neurological Research Help to Solve Problems in Technical Dependability, by L. Gambaryan and Yu. Gasparyan, 11 pp.  
RUSSIAN, per, Nauka i zhizn', No 8, 1967, pp 100-104.  
JPRS 43001

On the Secretory and Excretory Functions of the Stomach in Pigs and Foals, Both Healthy and When Suffering from Pneumonia, by M. T. Skorodumov.  
RUSSIAN, per, Nauk. Pratsi Vet. fak. Kiev, Vol 18, 1962, pp 57-59.  
NLL RTS 3057

Treatment of Patients with Diffuse and Disseminated Neurodermatitis by Electrosleep Combined with Hypnosis, by Yu. K. Skripkin, 8 pp.  
RUSSIAN, bk, Neyrodermit, 1967, pp 108-116.  
JPRS 42899

Concerning the Biological Basis of the Rate of Exploitation, and Means of Managing the Abundance of Fish Stocks, by G. V. Nikolsky.  
RUSSIAN, rpt, Ocherki po Obshchim Voprosam Ikhtiolozii, 1953, pp 306-318.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Biology of the Marbled Murrelet. (*Brachyramphus marmoratus*), by A. P. Kuznetsov.  
RUSSIAN, per, Omnitologiya, Vol 6, 1963, pp 315-320.  
NLL RTS 3231

Scientific  
Biological & Medical Sciences (Contd)

The Role of Plaster of Paris Filling in the Healing of Bone Cavities and Defects, by M. A. Korendiasev.  
RUSSIAN, per, Ortop Traum i Protez, Vol 20, No 5, 1959, pp 13-23.  
Dept of Navy 1208

Method of Subsurface Cultivation of Some Phytopathogenic Fungi, by I.N. Miusov, Yu. V. Peruanskiy.  
RUSSIAN, per, Prikladnaya Biokhimiya i Mikrobiologiya, 1966, pp 699-702.  
\*ACSI J-3366  
ID 2204042367

The International Biological Program, by B. Ye. Bykhovskiy, A. G. Bannikov.  
RUSSIAN, per, Priroda, No 6, 1967, pp 34-41.  
\*ACSI J-3516  
ID 2204048567

A. Controlled Biosynthesis of Chlorella, by V. E. Semenenko; B. New Model Filtration Membrane, by A. L. Gladilin; C. Metalloacthans.  
RUSSIAN, per, Priroda, No 8, 1967, pp 116-117.  
\*ACSI J-3710  
ID 2204052467

Economy Reserves with Freezing Fish under Expedition Conditions, by V. Sederko.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 40, No 12, pp 77-78, 1964.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Results of Catching Sardines in the Mid-Atlantic by Using Electric Light, by A. P. Lisovoy.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 41, No 2, 1965, pp 37-40.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Nutritive Value of Mussels from the Black Sea, by G. S. Korobkina, E. N. Danilova.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 41, No 12, 1965, pp 57-59.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

All-Union Conference on the Problems of Conservation and Reproduction of Fishing Stocks and On Fisheries Regulation, by E. G. Kossov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 6-7.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Marlins, by V.V. Ovchinnikov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 11-12.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Some Information on Sharks of the Eastern Part of the Tropical Atlantic, by K. A. Batal'yants.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 13-15.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Technochemical Properties of Some Indian Ocean Fishes, by L. D. Yaroslavtseva.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 60-64.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On the Specific Forces Applied in the Cutting of Fish, by S. G. Gurevich.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 66-67.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Removal of Sand from the Cavity of Mussel, by V. P. Trofimov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 68-69.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

The Influence of Technological Processing on the Nutritional Value of the Common Mussel, by G. S. Korobkina, E. N. Danilova, RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 70-71.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Utilization of Meal from Krill for Fodder Purposes, by E. F. Il'ichev. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 71-72.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Setup for Defrosting Block-Frozen Fish, by V. N. Lopatkov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, p 95.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Protection of Young of the Black Sea Mullet, by M. Ya. Savchuk. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 10-11.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Results of Tagging Pink Salmon, by V. N. Ivankov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 15-18.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Diseases of Carp (*Cyprinus Carpio*) Air Bladder, by I. I. Gevkan, V. M. Ivasik. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 27-28.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Soviet Scientists are Founders of the Theory of Electric Light Fishing, by A. N. Shabanov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 43-45.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Modification of the Flowsheet for Combined Smoking of Fish, by V. P. Skachkov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 67-69.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Preserving Live Mussels in Favorable Temperatures, by N. F. Moskalenko. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 73-76.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific Research Institutes of Norway Serving the Fishing Industry, by V. P. Bykov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 3, 1966, pp 84-86.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On Releasing Young Pink and Chum Salmon from Fish Hatcheries, by S. P. Volovik. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 4, 1966, pp 13-14.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Preparation of Food Products from Black-Sea Mussels, by L. L. Lagunov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 4, 1966, pp 73-76.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific Research Institutes of Norway Serving the Fishing Industry, by V. P. Bykov. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 4, 1966, pp 87-88.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Effect of Some Biological Factors on the Composition of the Fat of the Caspian Seal, by A. A. Magomayev. RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 10, 1966, pp 71-72.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Downstream Migration and Behaviour of the Young of Introduced Pink Salmon, by M. S. Kamyshnaya.

RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 1, 1967, pp 9-12.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Experiments with Artificial Shoals of Fish, by K. I. Iudanov, A. A. Gan'kov.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 25-26.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Curing the Roach Under Artificial Conditions, by V. Iuzhakova and M. Sangailene.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 55-56.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Canned Smoked Squid in Oil, by P. M. Khovrenko.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 62-64.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Biological Studies of the Saury and Its Commercial Fishing, by S. G. Zusser.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 6, 1967, pp 81-82.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Best Inventors and Innovators in the Fishing Industry.

RUSSIA, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 8-9.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Rod Fishing for the White-Finned Shark, by V. Aksimov.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 43-44.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Use of the ERG 1/8-4 Electrical Fishing Chasing Unit for Fishing in Semi-Drained Ponds, by S. Ia. Makarenko.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, p 51.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Sterilization of Canned Fishery Products, by O. M. Mel'nikova and M. G. Syromiatnikova.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 52-55.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Bacteriological Analysis of Water for Industrial Use in Fish Processing Enterprises,

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 65-66.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Technological Properties of the Spanish Sardine of the Gulf of Mexico, by E. M. Rodin.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 67-69.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Biological Studies of Saury and Its Commercial Fishing. (Conclusion), by S. G. Zusser.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 84-85.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Selection of an Optimum Method of Defrosting Fish, by V. P. Bykov.

RUSSIAN, per, Rybnoe Khoziaistvo, Vol 43, No 7, 1967, pp 86-87.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Investigation of the Microscopic Anatomy of the Domestic Hen III. Structure of the Oesophagus, by E. M. Ledyanova.

RUSSIAN, per, Shornik Rabot Leningrad Vet. Inst., Vol 17, 1959, pp 167-173.

NLL RTS 3194

Investigation of the Microscopic Anatomy of the Domestic Hen. IV. Structure of the Crop, by E. M. Ledyanova.

RUSSIAN, per, Shornik Rabot Leningrad Vet. Inst., Vol 17, 1959, pp 174-179.

NLL RTS 3195

Scientific  
Biological & Medical Sciences (Contd)

Histological Structure of the Chicken Gizzard,  
by E. M. Ledyava.  
RUSSIAN, per, Sbornik Rabot Leningrad Vet. Inst.,  
Vol 23, 1961, pp 469-475.  
NLL RIS 3186

Training in Social Hygiene and Public Health  
Organization at Bases Under Therapeutic-Prophylactic  
Institutions, by Ya. S. Mindlin and Ye. N.  
Kudryavtseva, 7 pp.  
RUSSIAN, per, Sovetskoye zdравоохранение, No  
9, 1967, pp 12-16.  
JPRS 43105

Morbidity and Mortality in the Ukraine as a  
Function of Geographic Location, by P. P. Grabovskiy,  
B. B. Lipnitskaya, 8 pp.  
RUSSIAN, per, Sovetskoye zdравоохранение,  
No 9, 1967, pp 32-38.  
JPRS 43105

The Use of Perforated Cards for Mass Prophylactic  
Examinations, by N. K. Purde and V. I. Taygro,  
7 pp.  
RUSSIAN, per, Sovetskoye zdравоохранение, No  
9, 1967, pp 42-46.  
JPRS 43105

Erroneous Diagnoses of Surgical Diseases by  
Ivanovo Medical Facilities Analyzed, by M. P.  
Isakhanov and Ye. I. Dubynina, 6 pp.  
RUSSIAN, per, Sovetskoye zdравоохранение, No  
9, 1967, pp 57-60.  
JPRS 43105

Distillation and Desalination of Water Aboard  
Ships.  
RUSSIAN, per, Sudostroyeniye  
1966, pp 42-47.  
\*Dept of Navy CNI

On Inductive Load of the Pulse Generator Used in  
the Electric Fishing, by S. K. Malkavichus and  
J. D. Balchunas.  
RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnasnoe Khoziaistvo, VNIRO, Vol 61,  
1966, pp 115-131.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

A Study of Reaction of Some Tropical Commercial  
Fish to Pulsating Unipolar Current in the  
Uniform Electric Field Induced in an Aquarium, by  
V. A. Pupyshev.

RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnasnoe Khoziaistvo, VNIRO, Vol 61,  
1966, pp 133-138.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On the Role of Different Sections of the Nervous  
System in Fish in Stimulating the Anode Reaction  
by G. P. Daniulite.

RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnasnoe Khoziaistvo, VNIRO, Vol 61, 1966,  
pp 141-150.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On Reaction of Some Fish to Modulated Pulsating  
Current, by G. Daniulite, D. Zubelite.

RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnasnoe Khoziaistvo, VNIRO,  
Vol 61, 1966, pp 151-157.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Underwater Observations on Fish in the Electric  
Field, by A. I. Rubtsev.

RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnasnoe Khoziaistvo, VNIRO, Vol 61,  
1966, pp 185-189.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Special Areas of Utilization of the Theory of  
Genetic Information and Potentials of Its  
Further Development, N. Zhukov-Perezhnikov,  
15 pp.

RUSSIAN, bk, Teoriya Geneticheskoy Informatsii,  
1966, pp 291-305.

JPRS 42837

Changes in the Blood Serum Protein Fractions in  
Boticin's Hepatitis, by V. M. Sukharev.

RUSSIAN, per, Terapevticheskiy Arkhiv, Vol 37,  
1965, pp 48-51.

NLL RIS 3403

Scientific  
Biological & Medical Sciences (Contd)

Blood Serum Protein Fractions in Diphyllobothriasis Patients, by E. S. Skovorodnikova.  
RUSSIAN, per, Tsarperticheskii Arkhiv, Vol 37, 1965, pp 106-110.  
NLL RTS 3404

The Sex Structure of a Spawning Population of Fish, Its Adaptive Significance and Means of Regulation, by A. P. Makeeva, G. V. Nikol'skii.  
RUSSIAN, per, 'Theoretical Principles of Fish Culture', 1965, pp 53-72.  
NLL 9022.56 (N.S. 78)

Deterioration Noted in Protein Content of Bread, by P. Sudnov, 5 pp.  
RUSSIAN, per, Trud., 2 Sep 1967, p 2.  
JPRS 42799

Influence of U.V. Light on Colorless Flagellata, by M. M. Kamshilov.  
RUSSIAN, per, Trudy AN SSSR. Institut Biologii Vnutrennikh Vod. Biologicheskiye Protsessy Vo Vnutrennikh Vodoyemakh. Sbornik Statey. Otdel'nyy Ottisk. No 9, 1965, pp 255-274.  
\*FTD-HT-23-1482-67

Data Relating to the Biology of the Syrman Goby Neogobius Syrman (Nordmann), by V. N. Maiskii.  
RUSSIAN, per, Trudy Azovskogo Nauchno-Issledovatel'skogo Instituta Rybnogo Khozyaistva, Vol 6, 1963, pp 95-103.  
NLL RTS 3126

A Bibliography of Research Papers Published by the Institute for the Biology of Inland Waters, USSR Academy of Sciences, 1952-1964, by N. D. Evseeva  
RUSSIAN, per, Trudy Instituta Biologii Vnutrennikh Vod, No 9(12), 1965, pp 115-147.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Mynah in Kara - Kums (Repetek)., RUSSIAN, per, Trudy Instituta Zoolozii i Parasitologii Akademii Nauk Turkmenской SSR, Vol 4, 1959, pp 150-155.  
NLL RTS 3477

Change of the Gastrointestinal Tract of Fowl in Connection with Age and Type of Food, by N. A. Krivosheina.  
RUSSIAN, per, Trudy Mezhd. Veterinariya Akademii Nauk, Vol 19, No 1, 1957, pp 406-422.  
NLL RTS 3236

Scientific  
Biological & Medical Sciences (Contd)

Population Dynamics and Annual Production of Acartia Clausi Giesbr. and Centropages Kroyeri Giesbr. in the Neritic Zone of the Black Sea, by V. N. Greze and E. P. Baldina.  
RUSSIAN, per, Trudy Sevastopol'skoi Biologicheskoi Stantsii, Akad. Nauk Ukrainskoi SSR, Vol 17, 1964, pp 249-261.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On the Formation and Reconstruction of the Flora and Fauna of the Veselovsk Reservoir, by V. M. Kruglova.  
RUSSIAN, per, Trudy 6 Soveshchaniya po Probleme Biologii (Vnutrennikh Vod), 1959, pp 426-430.  
NLL RTS 2934

Biological and Hydrodynamical Sounds Emitted by Fishes, by A. K. Tokarev, 13 pp.  
RUSSIAN, per, Trudy Vsesoyuznogo Nauchno-Issledovatel'skogo Instituta Morskogo Rybnogo Khozyaistva i Okeanografii, Vol XXXVI, 1958, pp 272-279.  
Dept of Navy NOO tr 254

Fluctuations in the Growth of Haddock in the Barents Sea in Relation to Their Food Supply, by N. A. Khaldinova.  
RUSSIAN, per, Trudy Vsesoyuznogo N.-I Instituta Morskogo Rybnogo Khozyaistva i Okeanografii (VNIIRO), Vol 60, 1966, pp 257-270.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Disinfectant and Sterilising Action of Ethylene Oxide, by E. Sh. Akopyan.  
RUSSIAN, per, Trudy Vsesoyuznogo Instituta Nauchno-Issledovatel'skogo Veterinarnoi Sanitarii, Vol 22, 1963, pp 46-60.  
NLL RTS 2950

Facts Relating to the Hydrobiological Characteristics of the Kairak-Kumak Reservoir During the First Year of Its Existence, by V. E. Oshegova.  
RUSSIAN, per, Trudy Zonal'nogo Soveshchaniya po Tipologii i Biolog. Obmeniya Riboch. Ispol. Vnut. Vod. Vuzh. Zony SSSR, 1962, pp 172-177.  
NLL RTS 2938

Urgent Problems in the Development of Science, the Biological Hydrogen Cycle, by A. A. Imshenetskiy, 18 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 39-51.  
JPRS 42671

Scientific  
Biological & Medical Sciences (Contd)

Experience with the Use of Local Anesthetic Trimecaine for Certain Types of Surgery, by V. D. Agafonov.  
RUSSIAN, per, Vest Khir im I. I. Grekova, Vol 98, No 2, 1967, pp 85-87.  
Dept of Navy 1209

Theoretical and Clinical Vestibulology, by V. I. Voyachek, 9 pp.  
RUSSIAN, per, Vestnik Otorinolaringologii, No 4, 1967, pp 3-8.  
JPRS 42842

Functions of the Vestibular Analyzer in Connection with Space Flight, by K. L. Khilov, 13 pp.  
RUSSIAN, per, Vestnik Otorinolaringologii, No 4, 1967, pp 8-17.  
JPRS 42842

Interruption of the Function of Otolithic Formations by Menas of Ionizing Radiation, by N. I. Arlashchenko, Yu. G. Grigor'yev, 9 pp.  
RUSSIAN, per, Vestnik Otorinolaringologii, No 4, 1967, pp 17-22.  
JPRS 42842

Effect of Radiations on Primary Functional Changes of the Cerebral Cortex, by Yu. G. Grigor'yev.  
RUSSIAN, per, Vestnik Rentgenologii i Radiologii, No 5, 1954, pp 3-10.  
\*FTD-HT-23-1476-67

The Importance of Regulated Conditions for Revealing the Potential Productivity of Plants, by B. S. Moshkov.  
RUSSIAN, per, Vestnik Sel'skokhozyaistvennoi Nauki, Vol 8, No 3, 1963, pp 102-104.  
NLL RTS 3389

The Effect of White Hellebore Infusion on Motor System of the Rumen in Cattle, by E. B. Petrova and Z. S. Goryainova.  
RUSSIAN, per, Veterinariya, Vol 2, 1961, pp 55-56.  
NLL RTS 3047

Concerning the Causes of Fluctuations in the Abundance of Fishes, by G. V. Nikolsky  
RUSSIAN, per, Voprosy Ikhtiologi, Vol 1, No 4(21), 1961, pp 659-665.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Active Metabolism in Fingerlings of Baltic Salmon (*Salmo Salar* l.) by V. S. Ivlev.  
RUSSIAN, per, Voprosy Ikhtiologi, No 22, 1962, pp 158-163.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Causes of Changes in the Growth Rate of the Sockeye Salmon (*Oncorhynchus Nerka Walbaum*) of the Ozernaya River, by F. V. Kroglius.  
RUSSIAN, per, Voprosy Ikhtiologi, Vol 5, No 3(36), 1965, pp 504-517.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Behavior of Certain Fishes under the Conditions of a Photogradient, by I. I. Girsa.  
RUSSIAN, per, Voprosy Ikh., Vol 6, No 1(38), 1966, pp 127-139.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Differentiation of Local Stock of Sockeye Salmon, *Oncorhynchus Nerka* (Walbaum) by a Composite Method Based upon Indicator Parasites and Peculiarities of the Scale Structure, by S. M. Konovalov.  
RUSSIAN, per, Voprosy Ikhtiologi, Vol 6, No 4(41), 1966, pp 619-630.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Treatment of Diabetics at Polish Health Resorts, by M. Ya Grabovskaya, 8 pp.  
RUSSIAN, per, Voprosy Kurortologii, Fizioterapii i Lechebnoy Fizicheskoy Kul'tury, No 4, Jul-Aug 1967, pp 368-371.  
JPRS 42890

Development of Cancer Chemotherapy in the Soviet Union, by L. F. Larionov, 44 pp.  
RUSSIAN, per, Voprosy Onkologii, Vol 13, No 8, 1967, pp 3-34.  
JPRS 42925

The Peroxide Resistance of Erythrocytes, by A. A. Polkovskii and A. A. Abrarov.  
RUSSIAN, per, Voprosy Pitanija, Vol 23, No 6, 1964, pp 44-49.  
NLL RTS 3220

Scientific  
Biological & Medical Sciences (Contd)

Study of Reliability of the Human Operator in Automated Systems, by V. D. Nebylitsyn.  
RUSSIAN, per, Voprosy Psichol., Vol 7, No 6, 1961  
pp 9-18.  
\*FTD-HT-23-1455-67

Model Building and Psychology, by D. B. Bogoyavlenskaya.  
RUSSIAN, per, Voprosy Psichologii, No 6, 1966,  
pp 183-185.  
\*FTD-HT-23-1477-67

Dynamics of the Humoral Immunity Indicators in the Serotherapy of Tick-Borne Encephalitis, by D. K. L'Vov, et al.  
RUSSIAN, per, Vop Virus, No 1, 1966, pp 62-67.  
HEW NIH 9-9-67

Viremia and the Dynamics of the Complement-Fixing Antibodies in the Common Hedgehog Infected with Tick-Borne Encephalitis Virus, by V. V. Kucheruk, et al.  
RUSSIAN, per, Vop Virus, No 3, 1966, pp 352-357.  
HEW NIH 9-17-67

Conditions Influencing the Efficacy of Immunization Against Tick-Borne Encephalitis. Communication 1. The Influence of the Immunogenic Properties of the Vaccine on the Efficacy of Vaccination and Revaccination, by M. P. Chumakov.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1965,  
pp 168-172.  
NLL RTS 3234

Aerosol Vaccination Against Tick Encephalitis, by I. I. Tersikh.  
RUSSIAN, per, Voprosy Virusologii, No 3, 1965,  
pp 359-360.  
NLL RTS 3416

Purification and Concentration of Human and Animal Viruses, by A. F. Bocharov, 5 pp.  
RUSSIAN, per, Voprosy Virusologii, No 6, 1966,  
pp 643-646.  
ACSI J-3242  
ID 2204038767

Changes in the Protein Spectrum Associated with the Non-Icteric Form of Botkin's Disease, by A. G. Andreeva and E. I. Bugayeva.  
RUSSIAN, per, Zdravookhranenie Belarusi, No 9, 1963, pp 20-21.  
NLL RTS 3405

Scientific  
Biological & Medical Sciences (Contd)

Leptospirosis in the Far East, by V. S. Kiktenko and V. V. Anan'in.  
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunologii, Vol 12, 1941, pp 72-78.  
NLL RTS 3493

The Role of Rodents of the Family Muridae in the Epidemiology of Swamp Fever (Leptospirosis Grippotyphosa), by A. A. Varfolomeeva and A. S. Nikiforova.  
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunologii, Vol 3, 1949, pp 65-69.  
NLL RTS 3492

Biological Species of Chermes and Their Statistical Differentiation, by Yu. A. Filipchenko.  
RUSSIAN, per, Zoolog. Vestnik, Vol 1, 1916,  
pp 261-277.  
NLL RTS 3164

The Daily Consumption of Phytoplankton in the Black Sea by the Copepod Calanus Helgolandicus (Claus). by T. S. Petipa.  
RUSSIAN, per, Zoologicheskii Zhurnal, Vol 44,  
No 6, 1965, pp 844-854.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On the Reproduction of the Seals Belonging to the Family Phocidae in the North Pacific, by E. A. Tikhomirov.  
RUSSIAN, per, Zoologicheskii Zhurnal, Vol XLV,  
Issue 2, 1966, pp 275-281.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Oxygen Consumption and Food Requirement in Copepods *Acartia Clausi* Giesbr. and *A. Latisetosa* Kritcz, by T. S. Petipa.  
RUSSIAN, per, Zoologicheskii Zhurnal, Vol 45,  
No 3, 1966, pp 363-370.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Mammals of the U.S.S.R. and Adjacent Countries Volume 9, by A. G. Tomilin.  
RUSSIAN, bk, Zveri SSSR i Prilezhashchikh Stran, 1965.  
CFSTI TT 65-50086

Device for Cultivating Microorganisms.  
RUSSIAN, Patent No 173889, 29 Sept 1967  
\*ACSI J-3448  
ID 2204046167

Scientific  
Biological & Medical Sciences (Contd)

Device for Aerogenic Immunization of Humans and Agricultural Livestock by Desiccated Vaccines.

RUSSIAN, Patent No 173892, 25 Sept 1967.  
\*ACSI J-3449  
ID 2204046267

A- Chemical and Physical Changes of Stored Meat Dried by Sublimation, by Oldrich Svabensky.  
B- Stability of Fats in Model Systems Dried by Sublimation, by Antonin Kopecky.  
CZECH, per, Prumysl Potravin, No 3, 1967, pp 163-167.  
ACSI J-3199  
ID 2204037767

Bacteriology and Pasteurization of Frozen Shrimp, by F. Thomsen.  
DANISH, rpt, Jul 1967, pp 10-16.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Auditory Damage and New Year's Fireworks Noise, by A. Christiansen and G. Rojdkjaer.  
DANISH, per, Nordisk Audio, No 13, 1964, pp 33-40.  
\*ACSI J-3724  
ID 2204053367

Experimental Study of Cerebral Anoxia Induced by Various Methods. The Search for Electrobio-logic Correlations, by H. Laborit, C. Baron, 32 pp.  
FRENCH  
Dept of Navy ONI tr 2475

Experimental Study of Metabolic Disturbances Resulting from Irreversible Hemorrhagic Shock and Their Therapeutic Treatment. Role of the Carboxylation of Pyruvate, by P. Laborit, H. Weber, 50 pp.  
FRENCH, per, CEPBEPE,  
Dept of Navy ONI tr 2463

Hyperlactacidemia: Factor in Erythrocytic Intra-vascular/Agglutination (Sludge), Acceleration of the Sedimentation Rate and Inhibition of the Reticuloendothelial System, by H. Laborit, N. R. Ornelas.  
FRENCH, per, CEPBEPE,  
Dept of Navy ONI tr 2474

Victims of Multiple Trauma, by R. Favre and P. Delaeroix, 237 pp.  
FRENCH, per, 1967.  
\*ACSI J-3720  
ID 2204053067

Scientific  
Biological & Medical Sciences (Contd)

Blood-Brain Barrier and Its Permeability to Corticoids, by R. Bernard, et al.  
FRENCH, per, Ann Pediat (Paris), Vol 13, 1966, pp 505-514.  
HEW NIH 9-12-67

Trematode Parasites of Marine Molluscs, by P. Pelseneer.  
FRENCH, per, Bull. Sci. Fr. Belge, Vol 40, 1906, pp 161-186.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Hygiene and Vaccination Methods, by M. Dakhia, 5 pp.  
FRENCH, per, El Moudjabid, 25 Aug 1967, p 8.  
JPRS 42992

Physico-chemical Conditions of Cutaneous Absorption. II. Theory of Membranes Having Large-Diameter Pores, by K.H. Meyer, J.F. Sievers.  
FRENCH, per, Helvetica Chimica Acta, Vol 19, 1939, pp 652-677.  
ACSI J-3345  
ID 2204041867

Food of Tomorrow, by M. G. Bureau.  
FRENCH, per, Industries Alimentaires, No 2, February 1967.  
ACSI J-3144

A Multi-Dimensional Method for the Chromatographic Identification of Amino Acids, by E. Von Arx, et al.  
FRENCH, per, J Chromatogr, Vol 12, 1963, pp 329-341.  
HEW NIH 9-3-67

Solitary Plasmocytoma in Otorhinolaryngology, by G. B. Leonardelli, et al.  
FRENCH, per, Journ. Franc Otorhinolaryng, Vol 25, 1966, pp 193-202.  
Dept of Navy 1212

Physico-chemical Conditions of Cutaneous Absorption; Part 2, by Guillaume Valette.  
FRENCH, per, Journal de Physiologie, Vol 46, pp 51-98.  
ACSI J-3346  
ID 2204041967

Bone Metastases in Cancer of the Cervix, by P. Marques, et al.  
FRENCH, per, J. Radiol Electr, Vol 47, No 6/7, 1966, pp 309-320.  
HEW NIH 9-19-67

Scientific  
Biological & Medical Sciences (Contd)

Biological Bases for the Therapeutic Use of Bee Venom, by N. N. Artemov, 48 pp.  
FRENCH, rpt, Les Bases Biologiques de l'Emploi Therapeutique du Venin D'abeilles, P500292467  
Dept of Navy NIC tr 2448

EEG Study of Sleep in a Group of Schizophrenics, by P. Passouant, et al.  
FRENCH, per, Rev Neurol (Paris), Vol 104, No 3, 1961, pp 246-249.  
HEW NIH 9-18-67

Chronotopographic Study of the Mean Occipital Activity Recorded on the Scalp in Humans, in Relation to Movements of the Eye (Lambda Complex), by A. Redmond, et al.  
FRENCH, per, Rev Neurol (Paris), Vol 113, No 3, 1965, pp 193-226.  
HEW NIH 9-1-67

Adoptive Immunotherapy (By Bone Marrow Graft or Transfusion of Leukocytes) in Acute Leukemias, by G. Mathe, et al.  
FRENCH, per, Sam Hop Paris, Vol 43, No 7, 1967, pp 450-457.  
HEW NIH 9-6-67

Methods of Investigation - Results of a Plankton Expedition of the Humboldt Foundation, by V. Hensen.  
GERMAN, rpt, 1895, 200 pp.  
Dept of Interior

Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Longevity of Physicians. Statistical Data, by M. Schachter.  
GERMAN, per, Arch Med Soc, Vol 4, No 1, 1948, pp 144-148.  
HEW NIH 9-16-67

Homomeric Alpha Cyanoacrylate Butyl Ester, Its Polymerization- Kinetic Characterization and the Development of a Preparation for Surgical Wound Agglutination, by H. Stricker.  
GERMAN, per, Archiv der Pharmazie, No 4, Apr 1967, pp 289-298.  
\*ACSI J-3651  
ID 2204051967

Duplications of Subunits of Chromosomal DNA During the Evolution of Chironomus thummi, by H. -G. Keyl.  
GERMAN, per, Chromosoma, Vol 17, 1965, pp 139-180.  
P911336967  
AEC ORNL-TR-1707

Scientific  
Biological & Medical Sciences (Contd)

Effect of Lightning on Man, by A. Schmeiser.  
GERMAN, per, Deutsch. Gesundh., Vol 20, March 25, 1965, pp 507-12.  
Dept of Navy 1206

Influence of Frequency, Number and Locus of Stimuli on the Intensity Dependence of Vibratory-evoked Cortical Response in Man, by H. Fruhstorfer.  
GERMAN, rpt, Dissertation, First Physiological Institute University, Erlangen-Nurnberg, 1966, pp 1-92.  
NASA TT F-11,193

Cerebral Functions of the Newborn--Experimental Studies, by O. Soltmann.  
GERMAN, per, Jb Kinderheilk, Vol 9, 1876, pp 106-148.  
HEW NIH 9-2-67

Capabilities for the Identification and Discrimination of Microbiological Aerosol Agents by Means of Radioactively Labeled Antisera, by Clemens Schuck.  
GERMAN, per, Laborbericht, 1967.  
ACSI J-3222  
ID 2204038267

Persons Injured by Lightning, by S. Koeppen.  
GERMAN, per, Med Klin, Vol 60, August 1965, pp 1390-93.  
Dept of Navy 1213

Late Manifestations of Malaria, by E. Lyon.  
GERMAN, per, Med. Klin, Vol 61, Oct 7, 1966, pp 1579-82.  
Dept of Navy 1211

On Specific and Non-Specific Food Poisonings, by I. Nikodemusz, 9 pp.  
GERMAN, per, Die Nahrung, No 3, pp 285-295.  
ACSI J-3062  
ID 2204033767

Detection of Marine Animal Oils in Edible Fats, by C. Franzke, K. O. Heims.  
GERMAN, per, Nahrung, Vol 9, 1967, pp 691-700.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Spectral Separation of Nonhomogeneous Turbulent Flows into Noncorrelating Components, by H. J. Mascheck.

GERMAN, per, Wissenschaftliche Zeitschrift, Vol 14, No 1, 1965, pp 107-108.

\*ACSI J-3519

ID 2204048767

Food Technology, by J. Kuprianoff.  
GERMAN, per, VDI-Zeitschrift, Vol 108, No 9, 1966, pp 400-408.

Dept of Interior

Fish and Wildlife Service

BCF, Bureau of Foreign Fisheries

Danger of Radiation Damage to the Eyes, Especially Laser Radiation, by F. Fankhauser, W. Lotmar.  
GERMAN, per, Z. Angew. Phys., Vol 6, 1966, pp 521-524  
RAE 1228

The Course of Contraction in the Left Heart Chamber, by A. Klumper, et al.  
GERMAN, per, Z. Kreislaufforsch., Vol 49, 1960, pp 500-510.  
HEW NIH 9-13-67

Military Medical Importance of Human Brucellosis, by J. Franze, E. Toppich.  
GERMAN, per, Zeitschrift fur Militarmedizin, No 5, Oct 1966, pp 266-269.  
ACSI J-3245  
ID 2204039067

Plasma Diagnostics by Non-Linear Resonance Angle Scattering, by A. Salat and A. Schlutter, 9 pp.  
GERMAN, per, Z. Naturforsch., Vol 20a, 1965, pp 458-462  
P911301667  
AEC NP-tr-1547

Autoradiographic Determination of DNA Duplication Time and Generation Time in Ehrlich Ascites Tumor of the Mouse by Double Labeling with Cl<sup>4</sup> and H<sup>3</sup>-Thymidine, by K. J. Lennarts and W. Maurer.  
GERMAN, per, Zeitschrift fur Zellforschung, Vol 63, 1964, pp 478-495.  
P911342067  
AEC UCRL-TRANS-10117

Capabilities and Limitations of Different Techniques for Measuring the Individual Dose, by Dr. Felix Wachsmann & Dr. Franz Kimberger.  
GERMAN, per, Zivilschutz, Vol 28, 1964, pp 243-251.  
ACSI J-3221  
ID 2204038167

Scientific  
Biological & Medical Sciences (Contd)

Reading and Charging Device for Dosimeters.  
GERMAN, Patent no 1,201,921, 30 Sep 1965  
ACSI J-3446  
ID 220405967

Sensitive Pocket Dosimeter with Radiation Element and Built-In Electrometer.  
GERMAN, Patent No 1185302, 14 Jan 1965.  
\*ACSI J-3440  
ID 2204045367

Dosimeter,  
GERMAN, Patent No., No 1,208,013, 30 Dec 1965.  
\*ACSI J-3454  
ID 2204013367

Process for Producing Disilathio Ether Derivatives.  
GERMAN, Patent No 1210192, 3 Feb 1966.  
\*ACSI J-3451  
ID 2204016467

Fluorescent Glass Radiation Dosimeter.  
GERMAN, Patent No 1224411, 8 Sept 1966.  
ACSI J-3455  
ID 2204046867

A Study of the Genital Products of the Brown Trout *Salmo Trutta* L. and the Rainbow Trout *Salmo Irideus* Gibbons, by T. Hamor.  
HUNGARIAN, per, Magyar Allattani Kozlony, Vol 43, 1966, pp 63-68.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Corpuscles of Stannius, by A. Corti.  
ITALIAN, per, Arch. Zool. Ital., Vol 40, 1955, pp 409-415.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Synthesis and Demolition of Desoxy-Ribose-5-Phosphate in Various Fractions of the Homogenate of Rat Liver, by E. Marinello, et al.  
ITALIAN, per, Boll Soc Ital Biol Sper., Vol 37, No 14, 1961, pp 686-689.  
HEW NIH 9-25-67

Scientific  
Biological & Medical Sciences (Contd)

Synthesis and Demolition of the Desoxy-Ribose-5-Phosphate in Various Organs of Rat, by E. Marinello, et al.  
ITALIAN, per, Boll Soc Ital Biol Sper, Vol 40, No 12, 1964, pp 729-731.  
HEW NIH 9-28-67

Two Cases of Extra-Adrenal Pheochromocytoma, by F. Silverstrini, et al.  
ITALIAN, per, Folia Endocr (Roma), Vol 10, 1957, pp 71-88.  
HEW NIH 9-5-67

Test for the Standardization of the Fixation of Glutaraldehyde. I. Purification and Determination of the Concentration of Glutaraldehyde, by H. D. Fahimi, et al.  
ITALIAN, per, J Microscopie, Vol 4, 1965, pp 725-736.  
HEW NIH 9-20-67

Attempts at Standardization of Glutaraldehyde Fixation, II. Influence of Aldehyde Concentration and Osmolality, by H. D. Fahimi, et al.  
ITALIAN, per, J Microscopie, Vol 4, 1965, pp 737-748.  
HEW NIH 9-22-67

Interventricular Communication From Isolated Rupture of the Septum, In Contusion Trauma of the Heart, by A. Dolara.  
ITALIAN, per, Minerva Medicoleg, Vol 84, 1964, pp 110-115.  
Dept. of Navy 1202

Rev. Thomas Robert Malthus (1766-1834), Precursor of Birth Control. On the Second Centennial of His Birth, by S. Rochietta.  
ITALIAN, per, Minerva Med, Vol 57, 1966, pp 837-838.  
HEW NIH 9-24-67

Immobilization Test in Amebiasis, by L. Valentino.  
ITALIAN, per, Riv Ist Sieroter Ital, Vol 31, No 4, 1956, pp 310-317.  
HEW NIH 9-7-67

A Case of Myocardial Infarct From Atmospheric Electrocution, by Santi Terranova.  
ITALIAN, per, Riv. Med, Vol 11, 1965, pp 90-91.  
Dept of Navy 1214

Exhaustion Process of the Genital Organs of Common Squid, by M. Hamabe.  
JAPANESE, rpt, 1963, No 11, pp. 1-11.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Littoral Aggregation of the Squid Near the Oki Islands -- II, by M. Hamabe, and T. Shimizu.  
JAPANESE, rpt, 1959, Vol 5, pp 19-27.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Salmon Resources and Salmon Fisheries Around the Pacific Ocean, by K. Taguchi.  
JAPANESE, rpt, 1966, Chap 6, pp 308-332, Chap 7, pp 333-354.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Studies on the Mass Mortality of the Oyster in Matsushima Bay, by H. Kanno, M. Sasaki.  
JAPANESE, rpt, Dec 1965, No 25, pp 1-104.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Vertical Distribution of Salmon in the North-western Pacific, by S. Machidori.  
JAPANESE, rpt, 1966, No 31, pp 11-17.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Some Information on the Eggs and Larvae of the Common Squid, by M. Okiyama.  
JAPANESE, rpt, Bulletin of the Japan Sea Regional Fisheries Research Laboratory, No 15, 1965, pp 39-53.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Effect of Dietary Lipids on Fish under Cultivation III. Effect of Methyl Esters of Highly Unsaturated Fatty Acids, Methyl Linoleate and Methyl Palmitate on the Fatty Acid Composition of Rainbow Trout Flesh Lipids, by T. Kanako, M. Takeuchi.  
JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 33, No 1, 1967, pp 47-55.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Effects of Dietary Lipids on Fish Reared Artificially. IV. Changes in the Fatty Acid Composition of the Flesh Lipids of Fasting Rainbow Trout, by T. Kaneko, M. Takeuchi. JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 33, No 1, 1966, pp 56-58.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries.

Electron Microscope Studies of 'Microsporum Japonicum' and 'Trichophyton Interdigitale' I, by T. Tamaki. JAPANESE, per, Shikoku Igaku Zasshi, Vol 15, No 6, 1959, pp 252-257.  
NLL 8732 (1237)

Determination of the Blood Protein SH Groups By Means of Beta-Hydroxy Ethyl-2,4-Dinitro Phenyl Disulfide, by J. Wartak, et al. POLISH, per, Acta Physiol Pol., Vol 16, 1965, pp 793-797.  
HEW NIH 9-23-67

The Metabolism of Steroid Hormones, by R. Dabrowska and B. Szukalski. POLISH, per, Post. Biochem., Vol 12, 1966, pp 309-345.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Phases in the Development of the Malaria Control Campaign in the Amazon Region, Initial Studies Made in the Field on the Resistance of *P. falciparum* to Drugs Containing Chloroquine, by Sidney Schmidt, 39 pp. PORTUGUESE, per, Revista Brasileira de Malariaologia, Vol 17, Apr-Sep 1965, pp 179-209.  
P500281467  
Dept of Navy NIC tr 2446

Conference on Chagas Disease, by Dr. Harry Seneca. PORTUGUESE, per, Revista Goiana de Med., Vol 9, 1963, pp 125-127.  
Dept of Navy 1207

Growth of the Oyster *Ostrea edulis* L. Before and During Fertilization of the Sea at the Limski Canal, Istra, from 1957 to 1960, by Marija Marinkovic and Miroslav Nikolic. SERBO-CROATIAN, per, Thalassia Jugoslavica, Vol 2, No 4, 1963, 25 pp  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Chemistry

A Volumetric-Gravimetric Method of Measuring Adsorption of a Mixture of Gases, by B. P. Bering and V. V. Serpinskii. RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 90, No 5, 1953, pp 811-814.  
NLL RTS 3438

A Study of the Combined Action of Radiation and Oxide Catalysts on the Dehydrogenation of Cyclohexane, by V. I. Vladimirova. RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 148, No 1, 1963, pp 101-104.  
NASA TT F-11,109

Relationship of the Physical Properties of Polyarimides to Their Chemical Structure, by A. P. Rudakov, RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 172, No 4, 1967, pp 899-902.  
NASA TT F-11,158

Selective Inhibition of Non-Specific Cholinesterase by Some O,O-Diethyl-S-Alkylthiophosphates, by N. N. Godovikov, Ye. I. Godyna, 5 pp. RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 174, No 3, 1967, pp 603-605.  
JPRS 42838

The Search for New Sympatholytic Compounds Among Derivatives of Xylocholine, Bretylium and Guanethidine, by V. M. Avakyan. RUSSIAN, per, Izvestiya Akademii Nauk Armyanskoi SSR, Seriya Fiziko-Matematicheskikh Nauk, Vol 16, No 6, 1963, pp 11-25.  
NLL RTS 3110

On the Fluorite Phases in Systems  $\text{CaF}_2$ - $\text{LnF}_3$ ,  $\text{SrF}_2$ - $\text{LnF}_3$ , and  $\text{BaF}_2$ - $\text{LnF}_3$ , by Ye. G. Ippolitov, L. S. Garashina. RUSSIAN, per, Izv. an SSSR Neorganicheskiye Materialy, No 3, 1967, pp 73-77.  
P911339167  
AEC UCRL-TRANS-10114

The Synthesis of 1,3-Dinitro-Alkanes by the Addition of Nitro-Paraffins to 1-Nitro-Olefines, by T. M. Khananov and G. K. Yakomazova. RUSSIAN, per, Izv. Vysshikh Uchebnykh Zavedenii SSSR Khim. i. Khim. Tekhnol., Vol 7, No 2, 1964, pp 237-239.  
NLL RTS 3043

Kinetics of the Reaction Between  $\text{SO}_2$  and  $\text{H}_2\text{S}$  by V. S. Undintseva, G. I. Chufarov. RUSSIAN, per, Khim. Prom., Vol 17, No 3, 1940, pp 24-28.  
NLL 9022.09 (4313)

Oxidation of Unsaturated Compounds with Organic Peroxides, by L. Prilezhayev, 43 pp.  
RUSSIAN, per, Khimich. Obshch., Vol 42, 1910,  
pp 1387-1418.  
Dept of Navy ONI tr 2478

Oxidation of Unsaturated Compounds with Organic Peroxides, by N. Prilezhayev, 16 pp.  
RUSSIAN, per, Khimich. Obshch., Vol XLIII, No 4,  
pp 609-620.  
Dept of Navy ONI tr 2485

The Road to Technical Progress on the Production of Chemical Fibers, by A. B. Pakshvey.  
RUSSIAN, per, Khimicheskiye Volokna, No 4,  
Jul-Aug 1967, pp 1-15.  
\*ACSI J-3722  
ID 2204053267

Luminescence Cytochemistry of Nucleic Acids, by A. V. Zelenin.  
RUSSIAN, bk, Luminestsentnaya Tsitokhimiya Nukleinovykh Kislot, 1967.  
Plenum Press

Some Methods in Analytical Protein Chemistry, by Yu. Ya. Gofman.  
RUSSIAN, per, Nekotorye Metody Analit. Khim.  
Balkov, Kishinev, 1965, pp 2-16.  
NLL RTS 3430

Luminescence Decay Time of Colour Centres in Ionic Crystals, by A. M. Bonch-Bruevich, G. A. Tishchenko.  
RUSSIAN, per, Optika i Spektroskopiya, Vol 2,  
No 1, 1957, pp 136-140.  
P911337667  
AEC NP-TR-1566

Polymerization With Deep Degrees of Conversion and Methods of its use, by G. O. Gladyshev,  
K. M. Gibov, et al.  
RUSSIAN, bk, Polimerizatsiya pri Glubokikh Stepenyakh Prevrashcheniya i Metody ee Ispol'zovaniya,  
1968.  
PLenum Press

Equilibrium Condensation Polymerization, by V. V. Korshak, S. V. Vinogradov.  
RUSSIAN, bk, Ravnovesnaya Polikondensatsiya, 1967.  
Plenum Press

Changes in the Chemical Composition of Canned Foods During High Temperature Sterilization, by P. I. Andrusenko and Z. V. Zvarich.  
RUSSIAN, per, Rybnoe Khosiaistvo, Vol 43, No 7, 1967, pp 63-64.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Oxide Films on Platinum, by N. A. Shishakov.  
RUSSIAN, per, Stroenie i Mekhanika Obrazovaniya Oksidov na Metalakh, Ch 6, 1959, pp 92-110.  
NLL RTS 3040

Experimental Determination of the Specific Volume of Water at Temperatures in the Range 374.15 - 5000°C and Pressures up to 600 kg/cm<sup>2</sup>, by S. L. Rivkin and T. S. Akhundov.  
RUSSIAN, per, Teplotoenergetika, No 9, 1963, pp 66-71.  
NLL RTS 2441

Thermal Distillation of Sea Water, by V. F. Kovalenko.  
RUSSIAN, bk, Termicheskoye Opresneniye Morskoy Vody, Moscow, 1966, pp. 216.  
P911353167  
AEC-tr-6893

The Chemistry of Difluoramine, by A. V. Fekin and Yu. I. Nosyrev, 32 pp.  
RUSSIAN, per, Uspekhi Khimii, Vol XXXV, Issue 11, 1966, pp 1897-1921. P500281567  
Dept of Navy NIC tr 2445

The Present Status of the Radiation Chemistry of Water and Aqueous Solutions, by A. K. Pukayev, 9 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 54-60.  
JPRS 42671

NMR in Organic Chemistry, by B. A. Ershov, A. I. Kol'tsov.  
RUSSIAN, bk, Yadernyi Magnitnyi Rezonans v Organicheskoi Khimii, 1968.  
Plenum Press

Tetrahydrate Acetates of the Rare Earth Elements, by G. V. Nadezhina, V. I. Ivanov.  
RUSSIAN, per, Zh. Obshch. Khim., Vol 36, No 9, 1966, pp 1560-1563.  
P91135167  
AEC LA-TR-67-50

The Determination of Transport Numbers in the Melts of Ionic Crystals, by I. Insalt, S. Langenfelz.  
CZECH, per, Magyar Kemiai Folyoirat, Vol 64, 1958, pp 282-284.  
P911341767  
AEC BNL-TR-150

Scientific  
Chemistry (Contd)

Research on the Derivatives of Pyromellitic and Cymylic Acids, by H. de Diesbach, G. Zurbriggen. FRENCH, var, Helvetica Chimica Acta, Vol 8, 1925, pp 46-557. NASA TT F-11,200

Phosphorescence in Organic Chemistry, by J. H. Bonnier, 51 pp. FRENCH, per, Revue de l'Institut Francais du Petrole, May 1966, pp 735-763. P500292567-V Dept of Navy NIC tr 2459

Acidimetric Determination of Free Acid and Uranium in Nitric Acid Solutions in the Presence of Plutonium IV, by D. Thiele and W. Bahr, 11 pp. GERMAN, rpt, Gesellschaft fur Kernforschung mbH, Karlsruhe, Nov. 1966. P911335367 AEC EURFNR-280

Critical Fluctuations and Critical Opalescence of Binary Systems, I. Theory of Critical Fluctuations, by A. Munster and Ch. Schneeweiss. GERMAN, per, Z. Phys. Chem., New Series 37, 1963, pp 353-368. P911341367 AEC ORNL-TR-1734

Critical Fluctuations and Critical Opalescence of Binary Systems, II. Critical Opalescence of X-Rays and Visible Light, by A. Munster and Ch. Schneeweiss. GERMAN, per, Ztschr. f. Physikal. Chem., New Series 37, 1963, pp 369-386. P911341467 AEC ORNL-TR-1735

Study on the Zirconium-Chlorine System, by K. Uchimura and K. Funaki. JAPANESE, per, Densi Kagaku-shi, Vol 33, 1965, pp 153-167. P911334767 AEC LA-TR-67-62

Corrosion Resistance of Ti in Hot Concentrated Chloride Solutions, by T. Shimose, A. Takamura. JAPANESE, per, Nihon Kinzoku Gakkai-shi, Vol 29, No 4, 1965, pp 416-421. NASA TT F-11,177

Separation of Eu<sup>152</sup>, Am<sup>241</sup> and Cm<sup>246</sup> by Electrophoretic Focusing, Using Sodium Polyphosphate as Complexing Agent, by Gheorghe Marou. RUMANIAN, per, Stud. Univ. Babes-Bolyai, Ser. Chem., Vol 11, No 2, 1966, pp 61-66. P911334867 AEC ORNL-TR-1717

Scientific  
Earth Sciences & Oceanography

The Spectral Composition of the Earth's Infrared Radiation Into Space According to the Measurement Results From Earth's Artificial Satellites, by A. I. Lebedinskiy, Yu. G. Andranov. RUSSIAN, rpt, Paper Read at the COSPAR Assembly London, England, Jul 1967. Sci Tech Info Facility ST-AM-SPC-10649

Application of Fourier Series Analysis for the Adjustment of a Photogrammetric Elevation Net with Use of Separate Elements for External Orientation of Air Photos, by V. I. Pavlov. RUSSIAN, per, Fotogrammetricheskaya obrabotka i deshifrirovaniye aerosnimkov, 1967, pp 5-30. ACIC TC-1288

Distortion of Coordinates of Air Photos and Models Because of the Influence of Atmospheric Refraction and Curvature of the Earth's Surface, by G. B. Gonin. RUSSIAN, per, Fotogrammetricheskaya obrabotka i deshifrirovaniye aerosnimkov, 1967, pp 106-120. ACIC TC-1290

Scanning and Rectification of Panoramic Photos, by G. B. Gonin. RUSSIAN, bk, Fotogrammetricheskaya obrabotka i deshifrirovaniye aerosnimkov, 1967, pp 136-138. ACIC TC-1291

Peculiarities of Identifying Field Preparation Points Under Conditions of Shifting Sands, by V. P. Alekseyev-Shemyakin and O. S. Fedorova. RUSSIAN, bk, Fotogrammetricheskaya obrabotka i deshifrirovaniye, 1967, pp 149-155. ACIC TC-1293

Alphabetical Index of Articles Published in the Magazine "Geodesy and Cartography" During 1965, 8 pp. RUSSIAN, per, Geodeziya i Kartografiya, No 12, 1965, pp 73-80. ACSI J-3407 ID 2204044167

Alphabetical Index of Articles Published in the Magazine "Geodesy and Cartography" During 1966, 9 pp. RUSSIAN, per, Geodeziya i Kartografiya, No 12, 1966, pp 72-80. ACSI J-3413 ID 2204044767

Scientific  
Earth Sciences & Oceanography (Contd)

Calculation of the Deformation of Aerial Films, by Yu. N. Fomin.  
RUSSIAN, per, Geodeziya i Kartografiya, No 1, 1967, pp 32-34.  
\*ACSI J-3601  
ID 2204051367

Analytic Methods of Spatial Phototriangulation Used in Mapmaking, by V. A. Polyakova.  
RUSSIAN, per, Geodeziya i Kartografiya, No 2, 1967, pp 46-52.  
ACSI J-3372  
ID 2204042967

Conclusions of the All-Union Conference on Automation and Mechanization in Cartography, by S. S. Vasmut, 3 pp.  
RUSSIAN, per, Geodeziya i Kartografiya, No 4, 1967, pp 68-70.  
ACSI J-3378  
ID 2204043567

Distortion of Features Copied through Transparent Overlays, by N. V. Smozhenkov.  
RUSSIAN, per, Geodeziya I Kartografiya, No 6, 1967, pp 62-68.  
\*ACSI J-3556  
ID 2204049967

Method of Evaluating the Operation of Masking Systems, by M. V. Ostrovskiy.  
RUSSIAN, per, Geodeziya I Kartografiya, No 6, 1967, pp 68-74.  
\*ACSI J-3556  
ID 2204049967

Magnetic Chart of the Brazilian Anomaly, by L. V. Konovalova and V. I. Nalivaiko.  
RUSSIAN, per, Geomagnetizm i Aeronomiya, Vol 7, No 2, 1967, pp 394-395.  
Dept of Navy/ APL/JHU T-2041

Ten Years of Soviet Geographic Explorations in Antarctica, by K. K. Markov, 13 pp.  
RUSSIAN, per, Information Bulletin of the Soviet Antarctic Expedition, No 57, 1966, pp 21-27.  
Dept of Navy/NIC tr No 2465 P500317067

Determination of the Moisture Reserves in the Snow Cover by the Aircraft Gamma Survey Method, RUSSIAN, per, Institute of Applied Geophysics, No 4, 1965.  
\*Dept of Navy ONI

Scientific  
Earth Sciences & Oceanography (Contd)

Some Pre-Cambrian Tilloids in the USSR, by N. M. Chumakov.  
RUSSIAN, per, Investigativ Akademii Nauk SSSR. Seriya Geologicheskaya, No 2, 1965, pp 83-101.  
NLL RTS 3125

Excerpt from the Report of the Soviet Geophysical Committee, Academy of Sciences of the USSR, to the 14th General Assembly of the International Union of Geodesy and Geophysics.  
RUSSIAN, rpt, Izvlechenie iz Otcheta Mezhdunarodnogo Geofiz. Komiteta pri Prezidiume Akademii Nauk SSSR XIV General'noi Assamblee Mezhdunarodnogo Soiuza Geodezii i Geofiz. Moscow, 1967, 47pp.  
AFCRL T-R-669

Physical Properties of the Serpentinites of the Middle Pobuz's'e Region, by V. I. Shapoval.  
RUSSIAN, per, Kompleksnye Geofiz. Issled. Territor. Ukrain., No 4, 1963, pp 29-32.  
NLL RTS 3222

Crusie Forecasts of Water Levels for Navigation, by Ye. G. Popov, V. M. Mukhin.  
RUSSIAN, per, Meteorologiya i Gidrologiya, No 6, 1967, pp 80-86.  
JPRS 42636

Report on the Accomplishment of the IQSY Program in the USSR.  
RUSSIAN, rpt, Natsional'nyy Otchet Sovetskogo Geofizicheskogo Komiteta po Proyektu "Mezhdunarodnyy God Spolochnogo Solntsa" Za Period 1964-1966 GG.  
\*FTD-HT-23-1457-67

Development of Marine Underwater Research, by B. P. Iamayfel', 181 pp.  
RUSSIAN, per, Nauka, 1965.  
Dept of Navy ONI tr 2462

First Voyage of the Research Vessel "Akademik Knipovich" into Antarctic Waters, by Yu. Yu. Marti.  
RUSSIAN, per, Okeanologiya, Vol 7, No 3, 1967, pp 539-543.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Discovery of a Deep Countercurrent at the Equator in Atlantic Ocean on Research Vessel Mikhail Lomonosov, by G. P. Ponosarenko, 8 pp.  
RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 77-82.  
Dept of Navy NOO tr 293

Scientific  
Earth Sciences & Oceanography (Contd)

Calculation of Transport and Temperature Change in the Upper Water Layer of North Atlantic Ocean, by L. A. Zhukov, 13 pp.  
RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 82-89.  
Dept of Navy N00 tr 294

Investigation of Water Layer With Oxygen Minimum in the North Atlantic Ocean in the Autumn of 1959, by B. A. Skopintsev, 12 pp.  
RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 108-114.  
Dept of Navy N00 tr 296

Formation of Primary Production in Antarctic Water, by B. V. Volkovinskiy and M. V. Fedosov, 13 pp.  
RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 115-122.  
Dept of Navy N00 tr 297

Quantitative Distribution and Seasonal Dynamics of Zooplankton in the Newfoundland Area, by Ye. V. Vladimirskaia, 11 pp.  
RUSSIAN, per, Okeanologicheskiye Issledovaniya, No 13, 1965, pp 137-142.  
Dept of Navy N00 tr 300

Thermal Physical Principles of Controlling the Interaction Between Structures and Frozen Soils, by G. V. Porkhaev.  
RUSSIAN, per, Principles of Geocryology, Pt 2. Engineering Geocryology Chapt. IV, 1959, pp 80-117.  
NLL 8732 (1249)

Surface and Underground Antennae: Theory and use of Antennae Placed Near the Earth's Surface, by G. A. Lavrov, et al.  
RUSSIAN, bk, Priznyye i Podzemnyye Antenny: Teoriya i Praktika Antenn, Razmeshchennykh Vblizi Poverkhnosti Zemli, 1965, pp 1-472.  
\*FTD-IIT-23-1481-67

The Batumi Aquarium.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 29-35.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Activities of the Arctic Institute for Scientific Research in Fisheries and Oceanography, by A. A. Alekseev.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 11, 1966, pp 2-3.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Earth Sciences & Oceanography (Contd)

Experiments with Artificial Shoals of Fish (Conclusion), by K. I. Iudanov, A. A. Gan'kov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, pp 37-38.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Regional and Zonal Anomalies of the Geomagnetic Field in the European Part of the USSR, by A. A. Borisov and G. I. Kruglyakova.  
RUSSIAN, per, Sovetskaya geologiya, No 1, 1967, pp 127-130.  
ACIC TC-1253

Peculiarities in the Recording Off-Bottom Fish by a Fish Finder, by K. I. Iudanov.  
RUSSIAN, per, Tekhnika Promyshlennogo Rybolybstva i Setesnashnoe Khozyaystvo, VNIRO, Vol 61, 1966, pp 227-230.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Ice Cover of the Northern Arctic Ocean and Methods of Calculating Some Parameters.  
RUSSIAN, per, Trudy, Vol 257.  
\*Dept of Navy UNI

The Fluorine Distribution in the Interstitial Waters and Sediments of the Black Sea, by O. V. Shishkina, G. A. Pavlova, et al.  
RUSSIAN, per, Trudy Akademii Nauk SSSR. Instituta Okeanologii, Vol 83, 1967, pp 83-98.  
\*Dept of Navy NRL

Chloride Sublimation as Applied to Pyrite Cinders from the Ores of the Nikolaev Deposits, by E. I. Kuzhakmetov, et al.  
RUSSIAN, per, Trudy Altaiskogo Gornometallurgicheskogo Nauchno-Issledovatel'skogo Instituta, Akademii Nauk Kazakhskoi SSR, Vol 14, 1963, pp 66-74.  
NLL RTS 2503

Tests in Determining Deep Sea Currents From a Drifting Vessel, by R. R. Balevich, 8 pp.  
RUSSIAN, per, Trudy Dal'nenvostochnogo Nauchno-Issledovatel'skogo Gidrometeorologicheskogo Instituta, Vol 17, 1964, pp 95-98.  
Dept of Navy N00 tr 318

Variation of Salinity with the Mixing of Water, by A. P. Tsurikova and V. L. Tsurikov.  
RUSSIAN, per, Trudy Gosudarstvennyy Okeanograficheskiy Institut, Vol 83, 1965, pp 72-100.  
\*Dept of Navy N00 tr 371

Scientific  
Earth Sciences & Oceanography (Contd)

Some Data on the Subterranean Component of Water and Salinity Balance of the Aral Sea, by V. P. L'vov.

RUSSIAN, per, Trudy Gosudarstvenny Okeanograficheskiy Institut, Vol 33, 1965, pp 207-243.

\*Dept of Navy NCO tr 372

Primary Production and the Content of Biogenic Elements in the Water of the Indian Ocean From October to April 1960-61, by Yu. G. Kabanava, 13 pp.

RUSSIAN, per, Trudy Instituta Okeanologii, Vol LXIV, 1964, pp 85-93.

Dept of Navy NCO tr 321

Use of Quantometers in Oceanographic Studies, by Yu. I. Belyaev and L. M. Khitrov.

RUSSIAN, per, Trudy Instituta Okeanologii Akad.

Nauk SSSR, Vol 75, 1964, pp 147-146.

NLL RTS 3089

Survey of Methods of Calculating the Drift and Consolidation of Sea Ice, by V. N. Yakovlev.

RUSSIAN, per, Tsent. Inst. Prog., Trudy, Vol 146, 1965, pp 107-116.

P911339667

AEC UCRL-TRANS-10106

Flotability of Natural Coals with a Different Degree of Carbonification, by D. S. Yemelianov and V. A. Shebanov.

RUSSIAN, per, Trudy Khar'kovskogo Gornogo Instituta, Vol 10, 1961, pp 227-231.

NLL RTS 3169

Development of Uda-River Gold Deposits, by L. N. Potapov, 8 pp.

RUSSIAN, per, Tsvetnyye Metally, No 8, Aug 1967, pp 1-5.

JPRS 43104

Investigations of the Constant Geomagnetic Field (All Union Conference in Leningrad), by S. Brodskaya.

RUSSIAN, per, Vestnik Akademii Nauk SSSR, No 2, 1967, pp 93-94.

ACIC TC-1252

On the Determination of the Orbital Elements of a Satellite from the Position and Velocity Components, by M. Burea.

CZECH, per, Studia Geophysica et Geodetica, Vol 10, No 4, 1966, pp 401-410.

\*ACIC TC-1339

Scientific  
Earth Sciences & Oceanography (Contd)

Determination of the Earth's Shape, by H. M. Dufour.

FRENCH, rpt, Paper Presented at the Meeting of the National Center of Space Studies on Dynamic Methods of Geodesy by Means of Satellites, Paris, 1967, pp 1-29.

NASA TT F-11, 191

On the Gravimetric Determination of the Exterior Gravity Field in the Immediate Vicinity of the Earth's Topographic Surface, by H. J. Gottschalk.

GERMAN, rpt, 1967, 117 pp.

\*ACIC TC-1329

Experiences with the Askania Gravimeter GS 12, by W. Bettac.

GERMAN, per, Askania-Warte, Vol 20, Issue 62, 1963, pp 1-7.

\*ACIC TC-1335

Some Statistical Properties of Regional Z and Bouguer Anomalies and Their Relationships to Crustal Structure in the Research Region, by W. Mundt.

GERMAN, rpt, Deutsche Akademie der Wissenschaften zu Berlin-Jahrbuch des Adolf-Schmidt-Observatoriums fur Erdmagnetismus in Niemegk, 1964, pp 121-129.

ACIC TC-1234

Rigorous Procedure for the Combination of Gravity Nets, Elevation Nets, and Astronomic Longitude Nets, by H. Wolf.

GERMAN, per, Deutsche Geodatische Kommission bei der Bayerischen Akademie der Wissenschaften, Issue 53, 1966, 41 pp + 22 Supplements.

\*ACIC TC-1330

Experimental Fishing during the Winter and Spring Seasons in the Fishing Areas Southwest of Newfoundland and on the Scotian Shelf during the Years 1961-1964, by E. Biester and P. Draffen.

GERMAN, per, Fischerei-Forschung Wissenschaftlich Schriftenreihe, Vol 4, No 1, 1966, pp 69-86.

Dept of Interior

Fish and Wildlife Service

BCF, Bureau of Foreign Fisheries

A Supplemental Condition for the Determination of the Earth's Potential Field from Satellite Observations, by Kurt Arnold.

GERMAN, per, Geologische Beitrage zur Geophysik, Vol 67, Issue 1, pp 18-20.

ACIC TC-1266

The Earth as Planet. Figure of the Earth, Earth's Interior, Gravity, by K. Jung.  
GERMAN, per, Naturforschung und Medizin in Deutschland 1939-1946, Vol 17, Geophysics, Part 1, pp 7-26.  
\*ACIC TC-1336

Remarks on the Measurements of the Earth's Magnetic Field in the Ries and Its Vicinity (1902 to 1965, by G. Angenheister.  
GERMAN, per, Neues Jahrbuch für Mineralogie, No 9-11, 1965, pp 260-267.  
ACIC TC-1231

Geophysical Measurements in the Steinheim Basin, by A. Jensch.  
GERMAN, per, Neues Jahrbuch für Mineralogie, No 9-11, 1965, pp 279-284.  
ACIC TC-1233

Investigations on Fictitious g Anomalies and the Possibility of Their Elimination, by F. Steiner.  
GERMAN, per, Pure and Applied Geophysics, Vol 66, 1967/I, pp 5-15.  
\*ACIC TC-1337

On Hotine's "A Primer of Non-Classical Geodesy" by Martha Nabauer.  
GERMAN, rpt, Theoretische Geodäsie, No 46, 1965, pp 1-80.  
ACIC TC-1265

Simplified and Expanded Theory of Surface Layer Rectifiers, by W. Schottky.  
GERMAN, rpt, Vereinfachte und erweiterte Theorie der Randschichtgleichrichter, undated, pp 539-593.  
\*ACSI J-3562  
ID 2204050167

Schweydar's Formulas for the Terrain Effects on g., by K. Jung.  
GERMAN, per, Zeitschrift für Geophysik, Vol 20, Issue 1, date unknown, presumed ca 1955, pp 47-64.  
\*ACIC TC-1334

Achievements of the Cartographic Enterprise in Photogrammetry, by József Favary, 9 pp.  
HUNGARIAN, per, Geodesia es Kartografia, No 4, 1967, pp 284-287.  
JPRS 42897

The Height Correction of Gravimeter Measurements, by A. Pinter and G. Szabo.  
HUNGARIAN, rpt, Geofizikai Konferenciák, Vol XV, No 1-4, pp 159-179, 1966.  
\*ACIC TC-1338

Some Remarks on the Formulas for Calculating the Second Derivatives of Gravity, by Břetislav Beranek.  
HUNGARIAN, per, Márv Geofizika, Issue 3, 1964, pp 40-47.  
\*ACIC TC-1258

The Determination of Normal Gravity in Geodesy, by Antonio Júdice.  
ITALIAN, per, Geofisica Pura e Applicata, Vol 16, No 1-2, 1950, 6 pp.  
\*ACIC TC 1332

Determination of the Geomagnetic Secular Variation in Europe During the Period 1950-1960 Through Observations Made at Observatories and Secular Stations, by H. Kautaleben and A. Wallner.  
POLISH, per, Geologische Beiträge zur Geophysik, Vol 75, No 3, pp 203-221.  
\*ACIC TC-1244

An Experimental Method of Measurements with the Gravimeter Askania GA-11 on a Frozen Sea, by Tadeusz Chojnicki.  
POLISH, per, Prace Instytutu Geodezji i Kartografii, Vol 13, No 28, 1966, pp 127-14.  
\*ACIC TC 1333

Geology, by N. Oncescu, 54 pp.  
RUMANIAN, per, Monografia Geografica a Republicii Populare Române, Vol 1, 1960, pp 105-145  
DIA LN 359-67

The Problem of the Figure of the Earth: Contribution for Its Study. Part I: The Gravimetric Method, by Júdice, Antonio.  
SPANISH, rpt, 1948, 122pp.  
\*ACIC TC-1328

Report on the Effect of Underwater Explosions Carried out during Oil Prospecting in the Sub-atlantic Region of Andalusia, by F. L. Cabe.  
SPANISH, rpt, 1966, 14 pp.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Report of Work Accomplished by the Geomagnetic Commission of the Geophysics Department in 1965, by S. Avila.  
SPANISH, rpt, 1965, 13 pp  
\*ACIC TC-1235

Comments on the Tectonics of Mexico, by Ernesto López Ramos.  
SPANISH, per, Boletín De La Asociación Mexicana de Geólogos Petroleros, Vol 14, Nos 9-10, 1962, pp 215-225.  
\*ACIC TC 1255

Practical Calculation of the Earth's Flattening and Equatorial Gravity, by Antonio Júdice.  
SPANISH, per, Geofisica Pura e Aplicata, Vol 18, 1950, 6 pp.  
\*ACIC TC 1331

Theory of waveguides, by B. N. Kashikovtsev.  
RUSSIAN, 1966, 351 pp.  
\*ACSI J-3634  
ID 2204051867

The Influence of the Geomagnetic Field on the Propagation of VLF Radiowaves around the Earth, by R. B. Baibulatov and P. E. Krasnushkin.  
RUSSIAN, per, AN SSSR, Doklady, Vol 174, No 1, 1967, pp 84-87.  
Dept of Navy/ APL/JHU T-2038

On a Theory of Superconductivity in a Phonon Model, by I. O. Kulik.  
RUSSIAN, per, AN UkrSSR. Elektronnye Svoystva Metallov i Splavov, 1966, pp 4-17.  
\*FTD-HT-23-1486-67

Suppression of Pulsed Perturbations by Means of a Subtraction Circuit, by Ya. I. Gronskiy et al.  
RUSSIAN, per, AN UkrSSR. Elementy Sistem Otvora i Peredachi Informatsii, 1965, pp 168-171.  
\*FTD-HT-23-1577-67

Dual Problems in Convex and Convex-Fractional Programming in Functional Spaces, by Ye. G. Gol'steyn, 11 pp.  
RUSSIAN, mono, Dvoystvennye Zadachi Vypuklogo i Drobno-Vypuklogo Programmirovaniya v Funktsional'nykh Prostranstvakh, 1967, pp 1-11.  
JPRS 42840

Computerized Data Processing for Power Plants, by Ye. A. Shornikov, 7 pp.  
RUSSIAN, per, Elektricheskiye stantsii, No 9, Sept 1967, pp 40-42.  
JPRS 42969

A Physical Model of the Constant Current Electric Power Transmission System from Stalingrad GES-Donbass, by V. V. Voskresenskii and Kh. F. Barakayev.  
RUSSIAN, per, Elektrichestvo, No 2, 1960, pp 28-35.  
NLL RTS 2884

Rural Electrification in USSR Summarized, by D. T. Komarov, 16 pp.  
RUSSIAN, per, Elektrichestvo, No 8, Aug 1967, pp 1-7.  
JPRS 42906

Electricity of the Free Atmosphere, by I. N. Imyanitov, E. V. Chubarina.  
RUSSIAN, bk, Elektrichestvo Svobodnoi Atmosfery, 1965.  
CFSTI TT 67-51374  
NASA tt F-425

electronics in Physics Experiments.  
RUSSIAN, bk, Elektronika v Fizicheskikh Eksperimentakh, 1968.  
PLENUI PRESS

Electron Beams and Guns, by I. V. Alyamovskiy.  
456 pp.  
RUSSIAN, bk, Elektronnye Puchki i Elektronnye Pushki, 1966.  
\*FTD-HT-23-1563-67

Ferrites for Radio Frequencies, by N. N. Shol'ts, et al. 258 pp.  
RUSSIAN, bk, Ferrity Dlya Radiochastot, 1966  
\*FTD-HT-23-1471-67

Preliminary Processing of Triangulation on a B.E.S.M. Computer, by D. G. Vil'ner, 5 pp.  
RUSSIAN, per, Geodeziya i Kartografiya, No 1, 1967, pp 19-21.  
ACSI J-3367  
ID 2204042467

Tunnel Diodes Pulse Circuits, by L. A. Morugin.  
RUSSIAN, bk, Impul'snyye Skhemy Na Tunnel'nykh Diodakh, 1966, 272 pp.  
\*FTD-NT-25-355-67

Balanced Waveguide Phase Detector, by V. V. Nikolayev.  
RUSSIAN, per, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 5, 1967, pp 52-53.  
\*FTD-HT-23-1370-67-C

Angular Antenna Errors due to Aerodynamic Heating of the Radome, by Ye. A. Vorob'yev.  
RUSSIAN, per, Izvestiya VUZ. Radioelektronika, Vol 10, No 2, 1967, pp 197-198.  
\*FTD-HT-23-1569-67

Study of Operational Properties in the Smoke Generator PSM, by M. V. Popov.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 159-162.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Simulation of Random Numbers on an Electronic Digital Computer, by V. A. Likharev, et al.  
RUSSIAN, per, Moscow. Aviatsionnyy Institut. Teoriya i Tekhnika Radiolokatsii, Sbornik Statey, No 1, 1966, pp 44-54.  
\*FTD-HT-23-1449-67-C

Decreasing the Effect of Blind Spots in the Radar Measurement of Ground Speed, by N. B. Tenin.  
RUSSIAN, per, Moscow, Aviatsionnyy Institut, Teoriya i Tekhnika Radiolokatsii, Sbornik Statey No 1, 1966, pp 65-77.  
\*FTD-HT-23-1479-67

New Student-Designed Electronic Equipment, 5 pp.  
RUSSIAN, per, Nauchno-tehnicheskiye obshchestva SSSR, No 8, Aug 1967, pp 51-54.  
JPRS 42924

Competition for Radar (Poprad).  
RUSSIAN, per, Nauka i Tekhnika, No 5, 1967, p 34.

\*Dept of Navy/APL/JHU J-1080

Correction of Amplitude Spectra Using a Digital Computer, by G. I. Zabiyakin, V. I. Prikhod'ko, 9 pp.  
RUSSIAN, per, Ob'edinennyi Institut Yadernykh Issledovaniy.  
Dept of Navy ONI tr 2481

Overvoltages and Electric Strength of High-Voltage Insulation, by P. A. Yurikov. 71 pp.  
RUSSIAN, bk, Perenapryazheniya i Elektricheskaya Prochnost' Vysokovol'tnoi Izolyatsii, 1964.  
CFSTI TT 67-51255

Problems of Electrification of Agriculture, by I. Ryzhenko and T. Tevosyan, 12 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No 8, Aug 1967, pp 24-31.  
JPRS 42733

Technical Devices for the Collection and Initial Processing of Primary Data at Industrial Enterprises, by V. I. Loskutov, 7 pp.  
RUSSIAN, per, Pribory i sistemy upravleniya, No 8, 1967, pp 28-31.  
JPRS 42817

Programming and Computer Techniques in Physics Experiments.  
RUSSIAN, bk, Programmirovaniye i Vychislitel'naya Tekhnika v Fizicheskem Eksperimente, Nauka 1968.  
PLUNEN PRESS

Laser Light for Television, by D. Gordeyev, Ye. Ostapchenko.  
RUSSIAN, per, Radio, No 5, 1967, pp 5-7.  
\*ACSI J-3517  
ID 2204048667

Television in Our Country, by F. Simakov.  
RUSSIAN, per, Radio, No 7, 1967, pp 4-5.  
\*FTD-HT-23-1469-67

Signal-noise Threshold Ratio During Target Detection on a Reflecting Background, by L. B. Fuks.  
RUSSIAN, per, Radioelektronika, Vol 10, No 5, 1967, pp 443-448.  
\*FTD-HT-23-1567-67

Optimal Radio Reception of AM Under Conditions of Interference by Another AM Signal and Fluctuational Noise, by Yu. N. Babonov.  
RUSSIAN, per, Radiotekhnika, Vol 21, No 11, 1966, pp 29-40.  
\*ACSI J-3717  
ID 2204052767

Dark Current and Cold Emission of an Image Converter Tube, by P. V. Shcheglov.  
RUSSIAN, per, Soobshch. Gos. Aston. in-ta im P. K. Shternberga, No 126, 1963, pp 56-65.  
\*FTD-HT-23-1461-67

Despite the Small Size of the Semiconductor, by A. Rzhanov.  
RUSSIAN, np, Sovetskaya Rossiya, 8 Jan 1966, p 3 Col 1-3.  
\*FTD-HT-23-1566-67

Flush-mounted UHF Antennas for High-speed Vessels, by V. A. Kundyshev, et al.  
RUSSIAN, per, Sudostroyeniye, No 1, 1967, pp 45-51.  
\*FTD-HT-23-1468-67

Robots Serve as Museum Guides, by M. Aleksandrov and K. Krayevskiy, 6 pp.  
RUSSIAN, per, Tekhnika molodezhi, No 6, 1967, pp 14-15.  
JPRS 42892

Theoretical Principles of Radioengineering Statistics, by B. R. Levin. 728 pp.  
RUSSIAN, bk, Teoreticheskiye Osnovy Statisticheskoy Radiotekhniki, Vol 1, 1966.  
\*FTD-HT-23-1448-67-C

Thermal Stability of Transistors and Reliability of Radio Equipment, by Yu. A. Shifrin-Kryzhalovskiy.  
RUSSIAN, bk, Teplovaya ustoychivost' tranzistorov i nadezhnost' radioelektronnoy apparatury, 1966, 255 pp.  
\*ACSI J-3509  
ID 2204048267

"Machine Recognition of Handwritten Numbers, by V. V. Trusov, et al.  
RUSSIAN, per, Trudy Kazanskogo Aviatsionnogo Instituta. Radiomechanika i Elektronika Kazan, No 85, 1964, pp 80-86.  
\*FTD-HT-23-1075-67

Method of Formation of Symbols in Displaying Information on an Electron Beam Tube, by E. S. Kozlov.  
RUSSIAN, per, Tsifrovaya Vychislitel'naya Tekhnika i Programmirovaniye, No 1, 1966, pp 59-66.  
\*ACSI J-3496  
ID 2204047967

Development of Electronics, by Ping-Ch'uan Feng.  
CHINESE, per, K'o Hsueh Ta Chung, Vol 12, 1965, pp 4-6.  
ACSI J-3309  
ID 2204041067

Klystrons, by Yao, Ch'i.  
CHINESE, per, Wu Hsien Tien, No 3, 1966, pp 12-13.  
\*FTD-HT-23-1575-67C

Electrical Engineering Faculty of the Czech Institute of Technology in Prague, by Karel Elicer, 5 pp.  
CZECH, per, Ceskoslovenske spoje, Vol 12, No 4, Aug 1967, pp 31-32.  
JPRS 42965

Piezoelectric Unit for Frequency and Time Standards, by J. Zalenka.  
CZECH, per, Sdelovaci Technika, No 5, 1965, pp 165-167.  
\*ACSI J-3505  
ID 2204047567

Semi-Automatic Processing of Analog Records (Application to Magnetograms), by R. Schlich and M. Palomares.  
FRENCH, per, Annales de l'Institut de Physique du Globe, Vol XXXIV.  
Dept of Navy/ APL/JHU TG 230-T528

Aspects of the Application of Reference Electrodes in the Study of Polarization Phenomena, by R. Fiop talli.  
FRENCH, bk, Aspects de l'Application des Electrodes de Reference dans L'Etude des Phenomenes de Polarisation, undated, pp 251-266.  
\*ACSI J-3459  
ID 2204046667

Dept of Navy  
Computer Industry and Market in East Germany, by F. Courtaud, 7 pp.  
FRENCH, per, L'Usine Nouvelle, Sep 1967, pp 121-123.  
JPRS 43116

Analysis of Sources of Pulse Radio Interference, by J. Holownia.  
GERMAN, per, Archiwum Elektrotechniki, Vol 15, No. 2, 1966, pp 301-324.  
\*FTD HT-23-1576-67-C

Integrated Circuit Engineering, by D. Sager.  
GERMAN, per, Radio und Fernsehen, No 15, 1966, pp 469-472.  
\*FTD HT-23-1568-67

Formulas for the Exact Dimensioning of Transistor Switching Stages, by P. Veith.  
GERMAN, per, Regelungstechnik, No 7, 1962, pp 295-299.  
\*Dept of Navy/ APL/JHU J-1068

Examination of the Spread of Radio Interference and of the Measures Necessary to Eliminate it, by D. Troppens.  
GERMAN, per, Schiffbautechnik, No 7, 1966, pp 380-385.  
\*FTD-HT-23-1565-67

Etch Pitting on Dislocations in Copper Single Crystals by Potentiostatic Electrolysis, by Liselotte Jasper and Werner Scharrwachter.  
GERMAN, per, Zt. f. Metallkd, Vol 57, No 9, 1966, pp 661-668.  
P911336667  
AEC ORNL-TR-1694

Study of Tungsten Oxides which Possess High Dielectric Constants (First Report) by Naruyuki Nagasawa.  
JAPANESE, per, Denki Kagaku, Vol 16, 1948, pp 13-15.  
ACSI J-3176  
ID 2204036567

Methods for Using Electronic Computers to Establish the Main Design Criteria for Optimum Ships. Medium-size Tankers (15,000 - 26,000 Tons D.W.), by J. Igierska, L. Nowakowski.  
POLISH, per, Polish maritime Inst, No 16, 1964. NLL 9022.065 (2112 (1))

•FTD-IT-23-1472-67

#### Energy Conversion (Non-Propulsion)

Improving Output Capacity of Power Enterprises, by A. I. Maksimov, 8 pp.  
RUSSIAN, per, Elektricheskiye stantsii, No 8, Aug 1967, pp 2-5.  
JPRS 42906

Dispatcher and Technological Control Facilities in Power Systems, by B. P. Belous, 8 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 8, 8 Aug 1967, pp 6-10.  
JPRS 42935

Voltage Increase of Cable Networks Planned, by V. A. Kozlov, 9 pp.  
RUSSIAN, per, Elektricheskiye Stantsii, No 8, Aug 1967, pp 10-14.  
JPRS 42906

Experimental Investigation of the Re-Synchronization of Generators,  
RUSSIAN, per, Elektrichestvo, No 4, 1955, pp 24-29.  
NLL RIS 2978

Project for 4,000,000-KW State Regional Electric Power Stations, 6 pp.  
RUSSIAN, per, Energetik, No 8, 1967, pp 35-37.  
JPRS 42848

Development of Polish Electric Power Industry in the Period 1945-1966, by S. Rosiak, 11 pp.  
POLISH, per, Energetyka, No 7, Jul 1967, pp 193-196.  
JPRS 42916

Determining the Critical Speeds of a Shaft of Hydraulic Apparatus, by L. L. Smelkov.  
RUSSIAN, per, Energomashinostroyeniye, No 1, 1966, pp 21-22.  
\*FTD-IT-67-52

New Power Stations to Operate, 5 pp.  
RUSSIAN, per, Gidrotekhnicheskove stroitel'stvo, No 8, Aug 1967, pp 1-3.  
JPRS 42906

•FTD-IT-23-1472-67

RUSSIAN, per, Gidrotekhnicheskove stroitel'stvo, No 3, Aug 1967, pp 3-9.  
JPRS 42906

Yugra hydroelectric power station gets new hydro-turbines, by ... I. Gal'perin, 9 pp.  
RUSSIAN, per, Gidrotekhnicheskove stroitel'stvo, No 8, Aug 1967, pp 9-13.  
JPRS 42906

Stability of Systems of Parallel Steam Generating Tubes, by V. I. Butnikov and A. V. Sergievskii.  
RUSSIAN, per, Trubnoe-Peredacha, No 8, No 3, 1965, pp 300-306.  
NLL RIS 3124

Power Enterprises Prodiced to Greater Efforts, by Yu. V. Kopytov, 5 pp.  
RUSSIAN, per, Promyshlennaya Energetika, No 9, 1967, pp 2,3.  
JPRS 43095

Rate Structure and Savings in Electric Power, by S. I. Zherzherunov, 5 pp.  
RUSSIAN, per, Promyshlennaya Energetika, No 9, 1967, pp 6-8.  
JPRS 43095

#### Materials

The Stabilization of the Reverse Martensitic Transformation Under the Effect of Intraphase Work Hardening, by V. G. Gorbach.  
RUSSIAN, per, AK Nauk UkrSSR. Fazovye Prevrashcheniya v Metal. i Splavakh, 1965, pp 100-110.  
\*FTD-IT-23-1472-67

Some Peculiarities of Structure and Property of Titanium Alloys in the Cast State, by G. A. Bochvar, et al.  
RUSSIAN, per, AN SSSR. Institut Metallurgii. Issledovaniye Splavov Tsvetnykh Metallov. Sbornik no 4, 1963, pp 249-256.  
\*FTD-IT-23-1487-67

Reactions Between Metal and Mould in Casting Titanium, by V. S. Pugin, et al.  
RUSSIAN, per, AN SSSR. Institut Metallurgii. Titan I Yego Splavy. No 6, 1961, pp 251-259.  
\*FTD-IT-24-357-67

Scientific  
Materials (Contd)

Permanent-mold Casting of Complex-shaped Thin-walled Titanium Parts, by Yu. P. Gavrilenko et al.  
RUSSIAN, per, AN SSSR. Institut Metallurgii. Titan i Yego Splayi, No 9, 1963, pp 270-273.  
\*FTD-HT-23-1499-67

Structural Changes During the Decomposition of Supersaturated Solid Solution of Tungsten in Cobalt, by L. N. Larikov, et al.  
RUSSIAN, per, AK Nauk UkrSSR. Fazovye Pre-rashchen. v Metal. i Splavakh, 1965, pp 127-131.  
\*FTD-HT-23-1472-67

Correlation Between the Structure and the Service Conditions of a Metal, by G. Ya. Kozyrskiy,  
RUSSIAN, per, AN UkrSSR. Fizicheskaya Priroda Plasticheskoy Deformatsii, 1966, pp 49-55.  
\*FTD-MT-24-331-67

Certain Features in the Electro-Slag Melting of Consumable Electrodes of Large Cross-Sections, by Yu. V. Latash.  
RUSSIAN, per, Avtom. Svarka, No 6, 1958, pp 76-83.  
BISI 5659

Effect of Slag Composition on the Melting of Large Cross-Section Electrodes in the Electro-Slag Process, by Yu. V. Latash and G. S. Tyagun-Belous.  
RUSSIAN, per, Avtom. Svarka, No 12, 1958, pp 17-27.  
BISI 5660

Photon Spectrum of Metals: 1. Phonon Spectrum of Metals. 2. Vibration Spectrum of Tin, by Ye. G. Brovman, et al.  
RUSSIAN, per, Doklady, Moscow. Institut Atomnoy Energii, IAE-1186, 1966, pp 1-40.  
\*FTD-HT-23-1564-67C

The Effect of Intermediate Conditioning in the Process of Steel Fatigue on Steel Durability, by L. A. Glikman, V. P. Tekht. 8 pp.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 22, No 1, pp 78-81. 1966. P100291867  
FTD-HT-67-138

Hot Cracking of Nonferrous Metals and Alloys, by I. I. Novikov. 299 pp.  
RUSSIAN, bk, Goryachelomost' Tsvetnykh Metallov i Sulavov, 1966.  
\*FTD-HT-24-333-67

Localization Factors of the Rare-Metal Mineralization in Carbonatites, by A. A. Fralov.  
RUSSIAN, per, Geologiya Rudnykh Metallovedeni, Vol 7, No 5, 1965, pp 31-37.  
NLL RTB 3326

Scientific  
Materials (Contd)

The Action of a Vibration Load of Polymer Materials, by L. A. Galin. 11 pp.  
RUSSIAN, per, Izvestiya AN SSSR. Mekhanika, No 6, 1965, pp 53-58. P100299667  
FTD-HT-67-197

The Hydrogen Embrittlement of F.C.C. Metals, by K. V. Popov and E. P. Nachai.  
RUSSIAN, per, Izv. AN SSSR Metally, No 1, 1966, pp 172-177.  
NLL 9022.4 (66/158)

Patenting in Two Baths, by I. Ye. Brainin.  
RUSSIAN, per, Izv. VUZ Chern. Met., 1958, Vol 6, pp 141-147.  
BISI 5566

On the Problem of Contact Friction in the Deformation Zone During Vibration Drawing, by T. M. Golubev and G. P. Dyadechko.  
RUSSIAN, per, Izv. Vyssh. uch. zav. Chernaya Metallurgiya, No 2, 1965, pp 99-102.  
NLL RTB 3341

Oxygen Blowing of Steel Coupled with the Addition of Fuel, by V. M. Lupeiko, et al.  
RUSSIAN, per, Izvest. VUZ-Chern. Met., No 4, 1966, pp 57-63.  
HB 6923

Preliminary Thermomechanical Treatment of Constructional Steels, by I. N. Kidin.  
RUSSIAN, per, Izv. VUZ Chern. Met., Nov 1966, pp 118-122.  
\*HB 7257

Calculation of Ingot Weight, by S. P. Baku-menko and B. B. Gulyaev.  
RUSSIAN, per, Izv. VUZ Chern. Met., 1967, BISI 5776

High-Temperature Combination Coatings /On Carbon and Alloy Steels/, by Yu. V. Grdina, A. F. Sefroshenko.  
RUSSIAN, per, Izv. VUZ-Chern. Met., No 4, 1967, pp 128-132.  
HB 7199

Effect of Plastic Deformation in Austenitic State on the Temper Brittleness of Rail Steel, by V. V. Druzhinin, et al.  
RUSSIAN, per, Izv. VUZ-Chernaya Metallurgiya, No 12, 1966, pp 120-121.  
\*FTD-HT-23-1465-67

Scientific  
Materials (Contd)

State of Nitrogen in the Fe-Cr-N System Alloys, by L. I. Levi and O. M. Borisova. RUSSIAN, per, Izv. VUZ Chern. Met., No 4, 1966, pp 171-173. \*EISI 5874

Equipment for Measuring the Temperature of Rotating Bodies, by A. V. Fateev. GERMAN, per, Izv. VUZ Priborostroenie, No 1, 1965, pp 26-31. NLL 9022.09 (4338)

Lavsan, the Plastic and its use in Cartographic Production, by S. V. Nesterova. RUSSIAN, per, Kartografiya, No 1, 1967, pp 70-72. ACSI J-3374  
ID 2204043167

Synthetic Fibers Plant Progress Reviewed, by S. L. Dich, 5 pp. RUSSIAN, per, Khimicheskiye Volokna, No 4, Jul-Aug 1967, pp 38-40. JPRS 42967

Evaluating the Deformability of R18 Steel at High Rates of Loading, by P. A. Meshchanchuk, et al. RUSSIAN, per, Kuznachno-shtampovochnoye Proizvodstvo, No 2, 1967, pp 14-18. \*FTD-HT-23-1460-67

Liquid Extrusion of Steel, by G. S. Grebenyuk. RUSSIAN, per, Kuznachno-shtampovoye, Vol 9, May 1967, pp 6-8. EISI 5790

Casting in Smelted Forms, by Ya. I. Shklenik and A. V. Baranov. RUSSIAN, bk, Lit'ye po vyplavlyayemym modeljam, undated, 457 pp. \*ACSI J-3552  
ID 2204049567

The Mechanisation of Noil Collection and Transportation, by G. M. Katsman. RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, No 6, 1965, pp 17. NLL RTS 3226

The Automatic Regulation of Knitting Density, by V. I. Shevchenko. RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, No 6, 1965, p 29. NLL RTS 3227

Scientific  
Materials (Contd)

Automatic Generation of Smoke by Smoke Generator PSM, by I. M. Marshak and M. V. Popov. RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 145-157.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Modification of Steel by Nitrides, by E. V. Peturina. RUSSIAN, per, Metallovedenie i Termicheskaya Obrabotka Metallov, Vol 11, 1962, pp 55-62. NLL RTS 2955

Modified Metals and Alloy Structure, by M. V. Mal'tsev. 201 pp. RUSSIAN, bk, Modifitsirovaniye Strukturny Metallov I Splavov, 1964, pp 1-214. P100313167-V  
FTD-MT-65-524

Quartz Ultramicro-Balances, by N. I. Abdulov. RUSSIAN, per, Obrisanie Isobretaniya k Avtorskym Svidetelstvym No 161523. NLL RTS 3199

Some Properties of the Pyrolytic Carbides and Nitrides of Group IV Metals, by V.S. Neshpor. RUSSIAN, per, Poroshkovaya Metallurgiya, Vol 7, No 2, 1967, pp 65-69. NASA TT F-11,180

The Effect of the Eddy Trails of the Otter Boards on the Catching Ability of the Trawl, by V. N. Martyshevskii. RUSSIAN, per, Rybnoe Khozyaistvo, Vol 41, No 12, 1965, pp 28-30; Vol 42, No 2, 1966, pp 51-54. NLL 9022.56 (N.S.80)

Flash Lamps for Various Types of Fishing, by Yu. I. Bykovskii. RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 2, 1966, pp 40-42.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Device for Picking Up the Trawl Headrops during the Hauling of the Trawl on Board, by Yu. B. Baranov. RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 2, 1966, p 55.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Materials (Contd)

Trawl Hanging Up Rig on Board Stern-Trawlers, by V. N. Ivanchenko.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 42, No 1, 1966, pp 55-59.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Sets of Trawls Made of Steel Cable Covered With Trawl Mesh.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 43, No 6, 1967, p 29.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Resistance Properties of Fishnet, by A. L. Fridman and Yu. A. Danilov.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 43, No 6, 1967, pp 38-40.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Use of Conveyers with Plastic Elements, by V. F. Reshit'ko.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 43, No 7, 1967, pp 56-57.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Kinetics of Vacuum Degassing of Liquid Steel, by O. Kh. Fatkullin, G. N. Oiks.  
RUSSIAN, per, Sbornik Moskovskogo Instituta Stali I Splatov, No 41, 1966, pp 151-160.  
HB 6599

Forging of Liquid Metals and Alloys, by M. A. Baranovskiy, et al. 75 pp.  
RUSSIAN, bk, Shtampovka Zhidkikh Metallov, 1963,  
\*FTD-NT-24-356-67

The Effect of Micro-Amounts of Low-Melting Elements on the Ductility of Stainless Steels During Hot Working, by A. S. Nikolaev.  
RUSSIAN, per, Stal', Vol 25, No. 12, 1965, pp 1120-1122.  
NLL 9022.4 (66/114)

Hot Tears in [Steel] Blooming Ingots, by A. D. Korshavin.  
RUSSIAN, per, Stal' - Sbornik Statist. 1961, pp 229-241.  
HB 6094

Scientific  
Materials (Contd)

Oxidation of Metals. Part 1, Nickel, by N. A. Shishakov.  
RUSSIAN, per, Stroenie i Mekhanizm Obrazovaniya Okisnykh Plenok na Metalakh, Ch 9, 1959, pp 144-152.  
NLL RTS 3207

Jubilee Exposition of Construction Materials, by A. M. Skobeleva, 7 pp.  
RUSSIAN, per, Stroitel'nyye Materialy, No 8, Aug 1967, pp 4-6.  
JPRS 42923

Pressing Questions in Esthetics of Technology, 5 pp.  
RUSSIAN, per, Stroitel'nyye Materialy, No 8, Aug 1967, pp 11-12.  
JPRS 42923

Soft Shipboard Containers, by V. C. Magula et al.  
RUSSIAN, per, Sudostroyeniye, 1966, 288 pp.  
\*ACSI J-3495  
ID 2204047867

Change in the Design of the Main Shaft of the First Line of Fluted Rollers of Spinning Frames, by A. S. Sinytsin.  
RUSSIAN, per, Tekstil'naya Promyshlennost', No 6, 1965, p 26.  
NLL RTS 3255

Changes in Structure of Raw Materials for Textile and Knitted Goods Industry, by Z. V. Bobrova and Ye. V. Zernov, 7 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost', No 7, Jul 1967, pp 2-4.  
JPRS 42905

A Marine Flame Photometer and Its Applications, by L. M. Khitrov and K. A. Kotlyarov.  
RUSSIAN, per, Trudy Instituta Okeanologii Akademii Nauk SSSR, Vol 75, 1964, pp 135-139.  
NLL RTS 3090

Use of Rotary Instruments for Rheological Investigations of Cement Mortars, by R. Sh. Rakhdikulov and E. M. Solov'ev.  
RUSSIAN, per, Trudy Moskovskogo Instituta Nafttekhniki I Gaz. Prom-sti, No 53, 1965, pp 115-118.  
NLL RTS 3412

The Development of Light Alloy Production during the Fifty Years of the Soviet Regime, by A. F. Belov and F. I. Kvasov, 9 pp.  
RUSSIAN, per, Tsvetnyye Metally, No 7, July 1967, pp 2-5.  
JPRS 42971

Scientific  
Materials (Contd)

Influence of Alloying on the Strength and Heat Resistance of Chromium-Nickel Austenite, by V. K. Farafonov, et al.  
RUSSIAN, per, Ural'skiy Mashinostroitel'nyy Zavod Sverdlovsk, Nauchno-issledovatel'skiy Institut Tyazhelogo Mashinostroyeniya, Proizvodstvo Krupnykh Mashin, No 13, 1966, pp 128-144.  
\*FTD-HT-23-1462-67

High-temperature Thermomechanical Treatment of Large Forgings of Chromium-Nickel-Manganese Austenite Steel, by Ye. N. Sokolov, et al.  
RUSSIAN, per, Ural'skiy Mashinostroitel'nyy Zavod Sverdlovsk, Nauchno-issledovatel'skiy Institut Tyazhelogo Mashinostroyeniya, Proizvodstvo Krupnykh Mashin, "Krupnye Pokovki Otvetstvennogo Naznacheniya", No 13, 1966, pp 153-160.  
\*FTD-HT-23-1462-67

Problems in the Optimal Planning of Mining Enterprises, by N. V. Mel'nikov and A. N. Kurnosov, 9 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 61-67.  
JPRS 42671

News in the Area of Study of Inorganic Materials, by A. A. Vertman and L. G. Shcherbakova, 7 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 111-122.  
JPRS 42671

Microfractographic Study of Stainless Steel, by A. I. Rizol'.  
RUSSIAN, per, Zavodskaya Laboratoriya, Vol 32, No 2, 1966, p 214.  
NLL 9022.4 (66/146)

The Kinetics of Ammonia Synthesis on Molybdenum Catalyst, by S. Kiperman and M. Temkin, 16 pp.  
RUSSIAN, per, Zh. Fiz. Khim., Vol 20, 1946, pp 396-378.  
P911305267  
AEC IB-Trans-68

Heat-resistant Ceramic Coatings.  
CZECH, rpt, Ceskoslovenska Akademie ved, Bulletin, No 3, 1963, p 2.  
\*FTD-HT-23-1463-67

The Effect of a Light Roll Pass and of Ageing on the Mechanical Properties of Deep-Drawing Steels, by A. Salak.  
CZECH, per, Hutnik, Vol 16, No 12, 1966, pp 689-592.  
\*BISI 5881

Scientific  
Materials (Contd)

Effects of Sulphur on the Properties of Deep-Drawing Steel Sheets, by A. Salak.  
CZECH, per, Hutn. Lisy, Vol 22, No 5, 1967, pp 299-304.  
\*BISI 5882

Evacuation of Electron Emitters Using Titanium Getter Pumps, by P. Mix, 5 pp.  
CZECH, per, Jemna Mechanika a Optika, 1966/8 pp 243-244. P911334267  
AEC Slac Trans-70

Analysis of Problems in Using Mathematical Methods for Determining the Coking Time in A Large Coke-Oven Battery, by L. Eoman.  
CZECH, per, Maliva, Vol 46, No 3, 1966, pp 90-93.  
BISI 5454

Selection of Emulsified Lubricants for the Cold Rolling of Steel Strip. Part I, by W. Gorecki and J. Madejski.  
CZECH, per, Prace Instytutow Hutniczych, Vol 17, No 5, 1965, pp 303-309.  
HB 6866-I

Process for Bonding Ceramic Objects with One Another or with Metal Objects, by N. V. Philips, 7 pp.  
DUTCH, Patent No. 83, 997, Dec. 16, 1956.  
P911341967  
AEC UCRL-Trans-10112

Four Years of Operation of Blast Furnace B of Ougree, by N. Kawet.  
FRENCH, per, C.D.S. Circ., No 1, 1967, pp 157-166.  
\*BISI 5869

The Rolling of H-Beams or Similar Sections by Means of Boxed Rolls and Edging Rolls, by R. Stammbach.  
FRENCH, per, C.D.S. Circ., Vol 24, No 4, 1967, pp 1031-1043.  
BISI 5622

Continuous Measurement of Sinter Quality, by G. Meunier and R. Holper.  
FRENCH, per, C.D.S. Circ., No 5, 1967, pp 1081-1089.  
\*BISI 5870

Studying the Transformation of Steels in Relation with Heat Treatment Problems, by C. Murry and A. Constant.  
FRENCH, per, C.D.S. Circ., No 6, 1967, pp 1561-1584.  
\*BISI 5897

Scientific  
Materials (Contd)

The Steelworks of Chertal Esperance-Longdoz, by C. Rome.  
FRENCH, per, C.N.R.M., Jun 1967, pp 25-34.  
\*BISI 5888

Prestressed Concrete Containers of the O2 and O3 Reactors, by P. Poitevin, 7 pp.  
FRENCH, rpt, Compagnie Indust. de Travaux, Mar 29, 1967. P911278067  
AEC ORNL-Tr-1691

Problems and Development of Materials Handling.  
FRENCH, per, Ingénieurs Et Techniciens, No 211, Jul-Aug 1967, pp 39-43.  
\*ACSI J-3595  
ID 2204050767

Fritting of Refractory Metals, by A. Hivert.  
FRENCH, rpt, Paper Presented at Scientific Sessions of O.N.E.R.A., 23-25 June 1966, 2 pp.  
NASA TT F-11, 174

Electrochemical Study of the Corrosion of Metals, by A. Desestret.  
FRENCH, per, Prat. Ind. Mecan., Vol 49, No 3, 1966, pp 88-92.  
\*BISI 5876

Controlling the Temperature in Coke Ovens, as Applied to Two Coke Oven Batteries at Drocourt, by S. Dalessard.  
FRENCH, per, Rev. Gen. Techn., Jun 1967, pp 839-846.  
\*BISI 5887

Difficulties of Gas Sampling from the Point of View of Its Continuous Analysis, by J. L. Fumontese.  
FRENCH, per, Rev. Met., Vol 64, Jan 1967, pp 61-71.  
\*BISI 5885

Contribution to the Study of the Tempering of Two Heat-Treatable Steels, by M. Jaspert.  
FRENCH, per, Rev. Met., Vol 64, Apr 1967, pp 349-359.  
\*BISI 5895

Possibilities Offered by "In Situ" Thermal Analysis for the Study of Transformations in Steel During Welding, by M. Granjon and R. Gaillard.  
FRENCH, per, Rev. Met. Mem. Sci., Vol 64, Apr 1967, pp 335-343.  
BISI 5785

Scientific  
Materials (Contd)

Heavy Plate Finishing and Heat Treatment, by G. Neunier.  
FRENCH, per, Techn. Mod., Vol 58, Feb 1966, pp 52-57, 92-97.  
BISI 5225

Structure of Sintered Tungsten Carbide-Cobalt Alloys, by H. E. Exner and H. Fischmeister.  
GERMAN, per, Arch. Eisenh., Vol 37, May 1966, pp 417-426.  
BISI 5704

The Mechanical Properties of Cemented Tungsten Carbide-Cobalt Alloys in Relation to the Structure (with Discussion), by H. Fischmeister and H. E. Exner.  
GERMAN, per, Arch. Eisenh., Vol 37, Jun 1966, pp 499-510.  
BISI 5705

Effect of Long-Time Annealing in the Temperature Range of 550 to 700°C on the Structure and Long-Time Behaviour of a Steel Containing 0.15% C and 0.5% Mo, by K. Relander and T. Geiger.  
GERMAN, per, Arch. Eisenh., Vol 38, Jan 1967, pp 49-54.  
BISI 5595

Vibratory Treatment of Liquid Nonferrous and Ferrous Metals, with Special Consideration of Grain Refinement During Solidification, by H. J. Seemann, H. Staats.  
GERMAN, per, Archiv Eisenhüttenwesen, Vol 38, No 4, 1967, pp 257-265.  
HB 7200

Simultaneous Sampling for Spectrometric and Gas Analytical Examination of Steel, by P. Dickens, P. Konig.  
GERMAN, per, Archiv Eisenhüttenwesen, Vol 38, No 5, 1967, pp 407-409.  
HB 7249

Distribution of Tensile Stresses During the Cold Rolling of Wide Strip, by A. Troost and H. Wilkening.  
GERMAN, per, Arch. Eisenh., Vol 48, Jan 1967, pp 31-40.  
BISI 5801

Processes in the Formation of Primary Deoxidation Products in Steel II.  
GERMAN, per, Arch. Eisenh., Vol 48, Aug 1967, pp 617-619.  
\*HB 7259

Scientific  
Materials (Contd)

Decarburization Rate and Decarburization During Manufacture of Steel in the Oxygen Converter, by K. Borowski.  
GERMAN, per, Arch. Eisen., Vol 48, Jul 1967, pp 501-507.  
\*BISI 5878

Problems of Fine Screening, by P. Schmidt.  
GERMAN, per, Aufbereitungs-Technik, No 6, 1967, pp 322-324.  
\*BISI 5893

Plastic Phenomena in Rolling, by Osmo Piispanen et al.  
GERMAN, per, Reprint from Bander Bleche Rohre 7, No 4, 1966, pp 189-193.  
\*ACSI J-3486  
ID 2204045767

Testing the Cold Deformability of Mild Steel Sheet, by F. E. Listhuber.  
GERMAN, per, Berg. Hütten. Monatsh., Vol 111, Sep 1966, pp 406-412.  
\*BISI 5879

Some Problem Connected with the Use of Heat Resistant Sheets, Especially with Regard to Enamelling, by T. H. Obering.  
GERMAN, per, Blech., Oct 1965, pp 570-577.  
\*BISI 5890

The Economics of Extruded Components from Wire and Rod Material, by V. Boetz.  
GERMAN, per, Draht-Welt, Vol 52, No 4, 1966, pp 212-216.  
BISI 5032

Bulk Materials Storage Problems, by K. Koch.  
GERMAN, per, Fordern Heben, Feb 1967, pp 91-95.  
\*BISI 5894

Concrete Hinges, by F. Leonhardt, 58 pp.  
GERMAN, per, Deut. Ausschuss Stahlbeton, No 175, 1965, pp 3-57.

Critical States of Stress of Concrete Under Multiaxial Static Short-Term Loading, by Horst Reinmann, 41 pp.  
GERMAN, per, Deut. Ausschuss Stahlbeton, No 175, 1965, pp 62-103 P911356167-V  
AEC ORNL-Tr-1729

Scientific  
Materials (Contd)

Tool Life as the Most Important Value on Which Machinability is Judged. Machining Principles and Methods of Testing, by W. Patterson.  
GERMAN, per, Glosserei, Vol 52, 19 Aug 1965, pp 513-527.  
BISI 5567

Influence of Heat-Treatment on Properties of Sintered, Ferrous Materials. I, by R. Chatterjee-Fischer and O. Schaaber.  
GERMAN, per, Hart.-Techn. Mitt., Vol 22, No 2, 1967, pp 132-139.  
\*BISI 5891

Flow Behind a Single Roughness Element, by W. Jacobs.  
GERMAN, per, Ing. Arch., Vol 9, 1938, pp 343-355.  
P911337167  
AEC ORNL-Tr-1639

The Effect of the Resin-Hardener System and of the Type of Reinforcement on the Stress Deformation Behavior of Epoxy Resin Glass Fiber Laminates, by Rolf Schmid, 20 pp.  
GERMAN, per, Kunststoffe, Vol 56, No 12, 1966, pp 837-842. P500317167  
Dept of Navy/NIC Tr No 2471

The Behavior of Glass Fiber Reinforced Plastics Under a Statistically Variable and Uniformly Oscillating Load, by A. Matting, N. Neitzel, 18 pp.  
GERMAN, per, Kunststoffe, Vol 56, No 12, 1966, pp 855-860. P500317267  
Dept of Navy/NIC Tr No 2472

Industrial Application of Protective Coatings on Steel Strip by Coating in a Vacuum, by W. Reichelt.  
GERMAN, per, Metalloberfläche, Vol 20, No 11, 1966, pp 474-478.  
\*BISI 5886

Sampling Device for Taking Samples of Unkilled Steel, by V. S. Kocho, V. A. Eroshenko.  
GERMAN, per, Metallurg, Vol 11, No 2, 1967, p 23.  
HB 7269

Influence of the Conditions of Testing on the Results of Microscopic Cleanliness Determinations, by H. J. Spies.  
GERMAN, per, Neue Hütte, Vol 11, July 1966, pp 420-427.  
BISI 5195

Scientific  
Materials (Contd)

The Magnetisation of the Ries's Suevit, by J. Pohl.  
GERMAN, per, Neues Jahrbuch fur Mineralogie, No 9-11, 1965, pp 268-276.  
ACIC TC-1232

Some Technical and Metallurgical Aspects of the Use of the R.H. Process, by M. Wahster and H. H. Reichel.  
GERMAN, per, Rheinstahl Technik, Vol 4, No 3, 1966, pp 80-89.  
\*BISI 5884

Cold Pressing Dies for Manufacturing Nuts on Transfer Presses, by W. Haufe.  
GERMAN, per, Schrauben, Muttern, Formteile, (Supp. to Draht-Welt), Jun 1967, pp 437-443.  
\*BISI 5892

Determination of the Ferrite Content in Austenitic Weld Metal, by H. Dietrich.  
GERMAN, per, Schweissen und Schneiden, Vol 18, No 11, 1966, pp 552-557.  
HB 7058

Plasticity Theory in Strip Extruding, by O. Piispanen.  
GERMAN, per, Sonderdruck aus Bander Bleche Rohre 8, No 3, 1967, 2 pp.  
\*ACSI J-3487  
ID 2204045467

Role of Fuel Technology in the Advances Made in Shaping and Heat Treating Special Steels, by W. Riemann.  
GERMAN, per, Stahl und Eisen, Vol 86, No 11, 1966, pp 672-678.  
HB 6936

Thermic Behaviour of a Group of Modern Hot Blast Stoves for Highest Blast Temperatures in Two- and Three-Stove Operation, by E. E. Hofmann and A. Kappelmayer.  
GERMAN, per, Stahl Eisen, Vol 86, Dec 1, 1966, pp 1594-1601.  
BISI 5397

Scientific  
Materials (Contd)

Rupture Tests on High-Tensile Steels in Gases and Solutions Containing Hydrogen Sulfide, by F. K. Naumann.  
GERMAN, per, Stahl Und Eisen, Vol 87, No 3, 1967, pp 146-154.  
HB 7167

Metallurgy of the "LD-Kaldo" Process, by J. Ledune and S. Dubek.  
GERMAN, per, Stahl Eisen, Vol 87, Mar 9, 1967, pp 241-245.  
BISI 5555

The Production of Cement from Metallurgical Slags, by H. vom Ende.  
GERMAN, per, Stahl Eisen, Vol 87, 9 Mar 1967, pp 246-255.  
BISI 5831

Injection of Coke Oven Gas into a Blast Furnace, by W. Loorz and D. Wenzel.  
GERMAN, per, Stahl und Eisen, Vol 87, No 4, 1967, pp 185-187.  
HB 7108

Experiences with Various Measuring and Monitoring Methods in the Iron and Steel Industry, by G. Poplekowksi.  
GERMAN, per, Stahl Eisen, Vol 87, 18 May 1967, pp 561-574.  
BISI 5727

Factors Affecting Decarburization Rate and Oxygen Content in the Basic OH Method, by H. vom Ende.  
GERMAN, per, Stahl Eisen, Vol 87, 29 Jun 1967, pp 773-776.  
\*BISI 5877

Correlations Between the Behaviour During Boiling in the Mould and the Degree of Macroscopic Purity of Various Effervescent Steels, by H. J. Langhammer.  
GERMAN, per, Stahl Eisen, Vol 87, 29 Jun 1967, pp 777-786.  
\*BISI 5889

Experience in the Shaping of Continuously Cast Steel Semi-Products, by W. Engelmann.  
GERMAN, per, Stahl Eisen, Vol 87, No 17, 1967, pp 1020-1030.  
\*HB 7255

Deformation of Sheet Metal With Explosives, by Paul Nemitz.  
GERMAN, per, Verein Deutscher Ingenieure Zeitschrift, Vol 106, No 24, Aug 1964, pp 1183-1189.  
ACSI J-3326  
ID 2204041667

Scientific Materials (Contd)

Analysis of High-Alloy Steels by Vacuum Spectrometry, by J. Bruch.  
GERMAN, per, Z. Anal. Chem., Vol 215, No 6, 1966, pp 332-343.  
BISI 5256

On Solution, Precipitation and Hardening Effect of Niobium in Unalloyed Steel, by L. Meyer.  
GERMAN, per, Z. Metallk., Vol 48, Jun 1967, pp 396-401.  
\*BISI 5880

Process for the Preparation of Uranium Nitride, by Dr. Dieter Naumann, Werner Heyne et al.  
7 pp.  
GERMAN, Patent No 48,580, Jan 7, 1965  
P911353467  
AEC UCRL-Trans-10120

Production of Iron Strip from Metal Powder, by T Kimura, H. Hirabayashi.  
JAPANESE, per, Japan Society of Powder Metallurgy, Vol 10, No 9, 1963, pp 172-180.  
HB 6976

Effect of the Strain Rate of the Plastic Shearing Behaviour of a Mild Steel Hollow Cylinder III, by M. Ohmori and Y. Yoshinaga.  
JAPANESE, per, Nippon Kinzoku, Vol 30, No 12, 1966, pp 1131-1137.  
\*BISI 5875

The Quality of High Carbon Steel Hoop from Continuously Cast Billets, by M. Yamaguchi and S. Koike.  
JAPANESE, per, Tetsu to Hagane, Vol 52, No 10, 1966, pp 1648-1650.  
HB 7261

High Efficiency [Blast Furnace] Tuyeres, by C. Sakai, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 3, 1967, pp 264-267.  
HB 7255

Replacement of O. H. Furnaces by a Basic Oxygen LD Furnace with an Exchangeable Vessel, by H. Nakagawa et al.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 3, 1967, pp 279-281.  
HB 7256

Temperature Measurement in Basic Oxygen (LD) Furnace During Blow, by K. Komoda, A. Okazaki.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 3, 1967, pp 281-283.  
HB 7254

Scientific Materials (Contd)

The Quality of Carbon Steel Forgings from Billets of Steel Made by the Basic Oxygen (LD) Process and Continuously Cast, by Sh. Koike and A. Kimura.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 4, 1967, pp 500-503.  
HB 7237

Study of the Hematite Bonding Mechanism During the Hardening of Magnetite Pellets, by S. Kondo.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 5, 1967, pp S 2.  
HB 7175

Effect of Pouring and Refining Practices on Defects in Heavy Steel Plant Detected by Ultrasonics, by Y. Koike, et al.  
JAPANESE, per, Tetsu to Hagane, Vol 53, No 5, 1967, p S 41.  
HB 7268

On the Relation Between Recrystallization Behaviour and Formability of Low Carbon Steel Sheet, by I. Onoda  
JAPANESE, per, Tetsu-to-Hagane, Jun 1967, p 909.  
\*BISI 5872

Studies on the Antarctic Whale Oils by Gas-Liquid Chromatography Using a Hydrogen Flame Ionization Detector. VI. 2,6,10,14-Tetramethyl-pentadecanoic Acid in Whale Oil, by Y. Sano.  
JAPANESE, per, Yukagaku (Journal of Japan Oil Chemists' Society), Vol 16, No 1, 1967, pp 8-12.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Studies on Antarctic Whale Oils by Gas-Liquid Chromatography Using a Hydrogen Flame Ionization Detector. VII. Identification of 4,8,12-tri-methyltridecanoic Acid As a Constituent of Whale Oil, by Y. Sano.  
JAPANESE, per, Yukagaku (Journal of Oil Chemists' Society), Vol 16, 1967, pp 56-61.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Long Range Plan for the Polish Mining Industry, by Inst. St. Piekarszyk, 5 pp.  
POLISH, per, Przeglad techniczny, No 39, 24 Sep 1967, p 6.  
JPRS 43099

Scientific Materials-(Contd)

New Grades of Cast Al-Ni-Co-Cu-Fe Permanent Magnets, by Stefan Golba, 8 pp. POLISH, per, Wiadomosci Elektrotechniczne, Vol 35, No 8, Aug 1967, pp 256-259. JPRS 43099

Behaviour of Iron Ore Pellets Subjected to Reduction, by R. P. de Souza. PORTUGUESE, per, Bol. ABM, No 22, 1966, pp 723-728. \*BISI 5873

Improvements in Manufacturing Technology of Ingot Moulds, by F. Schonberger and M. Martescu. ROUMANIAN, per, Metalurgia, Vol 17, No 4, 1965, pp 184-188. \*BISI 5868

Use of Sponge Iron for Steelmaking in Electric Arc Furnace, by O. Hatarascu. ROUMANIAN, per, Metalurgia, Vol 18, No 5, 1966, pp 253-257. \*BISI 5871

Looking for an Ideal Container. SPANISH, per, Pesca, Vol XIV, No 6, June 1967, pp 31-33. Dept of Interior Fish and Wildlife Service BCF, Bureau of Foreign Fisheries

Static Leaching of Spanish Uranium Ores, by G. Gordero et al. 28 pp. SPANISH, rpt, "Working Group on the Processing of Low Content Uranium Ores" Vienna, June 27-July 1, 1966 P911301567 AEC-TR-6850

General X-Ray Fluorescence Method for the Determination of Iron in Minerals, by T. Reistad. SWEDISH, per, Jernkont. Ann., Vol 151, No 3, 1967, pp 216-226. \*BISI 5896

Mathematical Sciences

On the Structure of Coefficients of the Tracking Functions, by N. F. Otrakov. RUSSIAN, per, Differentsial'nyye Uravneniya, Vol 3, No 2, 1967, pp 193-205. \*Dept of Navy/ APL/JHU J-1065

Scientific Mathematical Sciences (Contd)

The Numerical Integration of the Heat Conductivity Equation, by V. K. Saul'ev. RUSSIAN, per, Dokl. Akad. Nauk SSSR, Vol 125, No 1, pp 48-50. NLL RTS 3041

Connecting Dynamic Production Models Into Schemes, by Yu. P. Krivenkov, 8 pp. RUSSIAN, per, Doklady Akademii Nauk SSSR, Vol 1974, No 6, 1967, pp 1284-1287. JPRS 42894

On the Existence of Solutions to a Certain Class of Systems of Nonlinear Integral Questions, by L. I. Barklon. RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedenii, Matematika, No 6(49), 1965, pp 3-15. Dept of Navy/ APL/JHU T-2035

Some Classes of Locally Convex Topological Spaces, II, by Yu. I. Gribanov. RUSSIAN, per, VUZ Izv., Matematika, No 6, 1967, pp 26-38. \*Dept of Navy/ APL/JHU J-1071

Equations of the First Kind with a Closed Operator, by I. N. Dombrovskaya. RUSSIAN, per, VUZ Izv., Matematika, No 6, 1967, pp 39-42. \*Dept of Navy/ APL/JHU J-1072

The Net-Point Method for Nonstationary Navier-Stokes Equations, by A. Kzhivitskii and O. A. Lelyzhenskaya. RUSSIAN, per, Matematicheskiy Institut Imeni V. A. Steklova, Trudy, Vol 92, 1966, pp 93-99. P911342267 AEC SC-T-67-0942

A Pi-Regulator with Non-Linear Integrating Action, by Yu. O. Abugov, M. D. Gafanovich. RUSSIAN, per, Priborostroenie, No 12, 1966, pp 12-14. Dept of Navy/ APL/JHU T-2037

On the Defect Indices of Linear Operators in Banach Space and in Some Geometric Questions, by M. G. Krein, M. A. Krasnosel'skiy. RUSSIAN, per, Sbornik Trudov Instituta Matematiki Akad. Nauk Ukr. SSR, No 11, 1948, pp 97-112. Dept of Navy/ APL/JHU T-2031

Scientific  
Mathematical Sciences (Contd)

Mathematical Problems of Cybernetics and Computer Engineering, 43 pp.  
RUSSIAN, per, Trudy Vychislitel'nogo Tsentra Akademii Nauk Armianskogo SSR i Yerevanskogo Gosudarstvennogo Universiteta, III, Matematicheskiye Voprosy Kibernetiki i Vychislitel'noy Tekhniki, Modelirovaniye Protsessov Upravleniya, 1965, pp 1-95.  
JPRS 42802

Generalization of a Theorem of Bogolyubov to the Case of Hilbert Space, by Z. F. Sirchenko.  
RUSSIAN, per, Ukrainskii Matematicheskii Zhurnal, Vol 16, No 3, 1964, pp 339-350.  
Dept of Navy/ APL/JHU T-2039

Quasilinear Equations in Linear Topological Spaces, by V. I. Averbukh.  
RUSSIAN, per, Uspekhi Matematicheskikh Nauk, Vol 22, No 3, 1967, pp 233-234.  
\*Dept of Navy/ APL/JHU J-1073

A Priori Estimate of the Solutions for Some Quasilinear Parabolic Systems, by T. D. Venttsel.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta, Matem. Mekhan., No 3, 1967, pp 27-31.  
\*Dept of Navy/ APL/JHU J-1059

The Theory of Tikhonov Spaces, by V. I. Zaitsev.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta, Matem., Mekhan., No 3, 1967, pp 48-57.  
\*Dept of Navy/ APL-JHU J-1060

Interpolation Methods for Calculating Simple and Multiple Real Roots of Functions, by B. A. Zhiglevich.  
RUSSIAN, per, Zhurnal Vychislitel'noi Matematiki i Matematicheskoi Fiziki, Vol 7, No 1, 1967, pp 165-167.  
Dept of Navy/ APL/JHU T-2036

Mechanical, Industrial, Civil & Marine Engineering

The "TB-65" Channel Buoy.  
RUSSIAN, rpt, 1965, 4 pp  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Cold Brittleness and Maximum Plasticity of Metals in Shipbuilding, by Ye. I. Shevandin and I. A. Razov, 353 pp.  
RUSSIAN, bk, P500292767-V  
Dept of Navy NIC tr 2436

Procedures to Determine Some Parameters of the Ari Blast in Shafts and Their Hygienic Evaluation, by B. A. Shaparenko.  
RUSSIAN, per, pp 9-13.  
\*ACSI J-3719  
ID 2204052967

Self-Oscillating Systems, by K. F. Teodorchik, HUSEIAN, per, Avtokolebatel'nyye Sistemy, 1952, 271 pp.  
\*ACSI J-3539  
ID 2204049167

Main Types of Pneumatic Measuring Devices, by O. B. Balakshin.  
RUSSIAN, per, Avtomat. Pnevmat. Kontrol' Razmer. v Mashinost., 1964, pp 12-19.  
NLL RTS 3362

Automation of Pneumatic Gauge Controls in Machine Building, by O. B. Balakshin.  
RUSSIAN, per, Avtomat. Pnevmat. Kontrol' Razmer. v Mashinost., 1964, pp 123-131.  
NLL RTS 3363

Replacement of Nickel Electrodes in Incandescent Lamps, by M. I. Fugenfirov.  
RUSSIAN, per, Bulleten' Tekhniko-Ekonomiceskoi Informatsii, No 2, 1965, pp 45-46.  
NLL RTS 3221

Engineering Control in Water Supply Construction, by M. Geydarov, 5 pp.  
RUSSIAN, per, Den'gi i kredit, No 7, 1967, pp 52-55.  
JPRS 42732

Thermification of the Country in the Years of Soviet Rule, by Prof. Ye. Ya. Sokolov, 9 pp.  
RUSSIAN, per, Energetik, No 8, 1967, pp 1-5.  
JPRS 42848

A Hydraulic Spring for a Pneumohydraulic Elastic Element in Vehicle Suspension Systems, by N. N. Rakhmanov, K. M. Atoyan, 1 pp.  
RUSSIAN, per, Izobreteniya, Promyshlennyye Obraztsy Tovarnyye Znaki, No 1, 1967.  
ACSI J-3308  
ID 2204040967

Improvement of Construction Management, by Ye. Khalabayev, 13 pp.  
RUSSIAN, per, Materialno-Tekhicheskiye Snab, No 9, Sept 1967, pp 5-14.  
JPRS 42970

Theoretical and Experimental Research on Phenomenon of Cumulation.  
RUSSIAN, per, Mekhanika, No 4, 1953, pp 51-105.  
\*ACSI J-3564  
ID 2204050367

All-Round Mechanisation and Automation in the Bearing Industry, by A. I. Sprishevskii and L. M. Makarov.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Proizvodstva, Vol 5, 1961, pp 1-7.  
NLL RIS 3300

Hydraulics in the Mechanized Processing of Herring on Board a Fishing Vessel, by A. V. Terentyev.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 69-78.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Salting of Herring in the Circulating Brine in Tanks on Board a Middle Trawler, by V. P. Fominova.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 79-86.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Hydraulics in the Mechanized Loading of Salted Herring in the Fishing Vessels, by A. V. Terentyev, A. B. Barsel.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 93-103.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Main Parameters of the Automatic Fish Smoking Process, by I. M. Marshak and M. V. Popov.  
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya Trudoemkikh Protsessov v Rybnoy Promyshlennosti, VNIRO, Vol 59, 1966, pp 107-143.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Simulation of the Creep of a Turbine Blade T-Shaped Tail by Means of a Model, by I. I. Bugakov, V. P. Smirnova.  
RUSSIAN, per, Modelirovaniye Polzochesti T-Obraznogo Khvosta, 1964, pp 192-207.  
NLL RIS 3201

Certain Characteristics of Transverse Shear of Multilayered Beams, the Layers of Which are Joined by a Deformable Glue, by R. D. Vaganov.  
RUSSIAN, per, Moskva. Institut Mashinovedeniya. "Kolebaniya i Prochnost' pri Peremennykh Napryazheniyakh", 1965, pp 149-158.  
\*FTD-HT-23-1452-67-C

Effectiveness of Stress Concentration and the Scale Effect in Two-stage Cyclical Loading, by R. D. Vaganov.  
RUSSIAN, per, Moskva. Institut Mashinovedeniya. "Kolebaniya i Prochnost' pri Peremennykh Napryazheniyakh, 1965, pp 170-183.  
\*FTD-HT-23-1452-67-C

Scientific Principles of Production-Supply System, by I. Oves and V. Spektor, 9 pp.  
RUSSIAN, per, Na Stroykakh Rossii, No 8, Aug 1966, pp 25-26.  
JPRS 42868

Conference of Workers of Institutes for the Design and Planning of Civil Engineering and Housing Projects, 6 pp.  
RUSSIAN, per, Na Stroykakh Rossii, No 8, Aug 1967, p. 31.  
JPRS 42868

New Ideas in Experiment Design, by V. V. Nalimov.  
RUSSIAN, bk, Novye Idei v Plamirovaniu Eksperimenta, 1969.  
Plenum Press

Experimental Firefighting on Ships. Experiments Continue, by R. Baranovskii and A. Fedotova.  
RUSSIAN, per, Posharnoe Delo, Vol 4, 1965, pp 24-26.  
NLL RIS 3159

Problems of Pollution and Conservation, 6 pp.  
RUSSIAN, np, Pravda Ukrayny, 29 Aug 1967, p. 2.  
JPRS 42878

Wide-Range Pneumatic Devices for Automatic Dimension Control, by E. I. Fed'.

RUSSIAN, per, Pribor i Sredstva Ilyia Avtivnoe Kontroliya Razmerov na Metalloobrabatyvayushchikh, 1965, pp 60-60.  
NLL RIS 3361

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Calculation of Snapping Membranes, by V. I. Fedos'ev.  
RUSSIAN, per, Prikladnaya Matematika i Mekhanika, Vol 10, No 2, 1946, pp 295-300.  
NLL RRS 3079

Work of Saratov Industrial Planning Institute since 1964, by N. V. Semenov, 7 pp.  
RUSSIAN, per, Promyshlennoye Stroitel'stvo, No 6, 1967, pp 10-11.  
JPRS 42968

Designing Efficiency Improved, by K. S. Nekrasov and Ya. I. Leykin, 6 pp.  
RUSSIAN, per, Promyshlennoye Stroitel'stvo, No 8, 1967, pp 7-8.  
JPRS 42923

Vacuum Desalination Unit Installed in Ships of the "Tropik" Class, by M. A. Rappoport.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 30-32.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Processing Refrigerator, by I. Skotar.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, pp 36-37, 1966  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Innovations Effected on the Floating Fishing Base Kavkaz, by V. Skorupskiy.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 45-46.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

SMC-1 Hydraulic Net-Shaking Machine, by M. B. Tsybushnik and O. P. Shakhov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 29-35.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

The Use of Colored Netting in the Manufacture of Trawls, by A. Gryadunov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, p 39.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

On the Work of the Experimental Ship "Neringa" by G. M. Kulichkov and Yu. A. Trubnikov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 41, No 2, 1965, pp 41-43.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Testing Experimental Schemes to Automate Refrigeration Plants on the BMRT, by V. P. Irzhevskiy, A. I. Komeyko.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 41, No 2, 1965, pp 66-69.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Hydrodynamic Calculation of a Lifting Trawl Board, by V. Savost'yanov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 56-58.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Automatic Weight-Control Setup of the IVA Type, by V. A. Shcherbakov and V. A. Piskunov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 62-63.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Tests of the "Elro" Smoke Generator, by A. N. Akesenova.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 2, 1966, pp 64-67.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A New Method for Calculating the Stowage Capacity of Fishing Vessels, by S. I. Belkin, L. D. Voronkov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 12, 1966, pp 32-36.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A Method of Preventing Obsolescence on Fishing Vessels, by M. V. Nabikanova.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 12, 1966, pp 74-76.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Designs for outfitting Trawls, by A. S. Borenkov and V. N. Simonov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 6, 1967, pp 27-29.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Experience in Using a "Ladoga" Phototelegraphic Unit in Fisheries Exploration, by V. D. Dibner and M. N. Poliakov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 6, 1967, pp 34-37.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

A Midwater 27-Meter Trawl.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 6, 1967, pp 46-47.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Processing of the Raw Skins of Caspian Seals Aboard Catching Vessels, by A. Abdullaev.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 6, 1967, pp 59-61.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Modernization of Inflatable Life Rafts PSN-6 and PSN-10, by A. A. Astakhov and F. F. Korzakov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, pp 34-36.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

New Designs for outfitting Trawls (Conclusion), by A. S. Borenkov and V. N. Simonov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, pp 39-41.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Changing the Mounting of Trawl Guides on RT Type Vessels Built in Finland.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, pp 41-42.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Drefroster Designed by A. A. Khramov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, p 70.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Freon Refrigeration Installation, by V. F. Semakov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 43, No 7, 1967, p 85.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Suggestions for Improving Rural Construction, by V. Il'yin and A. Martem'yanov, 6 pp.  
RUSSIAN, per, Sel'skove Stroitel'stvo, No 8, 1967, pp 1-2.  
JPRS 42923

Statistical Hydromechanics, by A. S. Monin and A. N. Yaglom.  
RUSSIAN, bk. Statisticheskaya Gidromekhanika.  
Chast' II,  
\*Scripta Technica

On the Direction of Rotation of Controllable-Pitch Propellers in Twin-Screw Ships, by O. N. Karavaeva and E. A. Luchanskii.  
RUSSIAN, per, Sudostroenie, Vol 27, No 3, 1961, p 9.  
NLL 9022.065 (2303)

Strength Standards of Merchant Ships, by V. V. Koslyakov.  
RUSSIAN, per, Sudostroenie, Vol 31, No 2, 1965, p 13.  
NLL 9022.065 (2287)

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Tankers with Optimum Transporting Capability, by V. M. Veksler. RUSSIAN, per, Sudostroenie, Vol 31, No 4, 1965, p 11. NLL 9022.065 (2296)

Conditions for Slamming-Free Operation of a Ship in Waves, by G. S. Chuvikovskii. RUSSIAN, per, Sudostroenie, Vol 31, No 6, 1965, p 10. NLL 9022.065 (2308)

(Passive) Roll Stabilizers Which Act on the Initial Stability of the Ship, by G. M. Khoroshanski. RUSSIAN, per, Sudostroenie, Vol 31, No 6, 1965, p 14. NLL 9022.065 (2313)

The Distribution of Luminance in the Field of View and Visual Efficiency, by Ts. I. Kral' and G. A. Tishchenko. RUSSIAN, per, Svetotekhnika, Vol 10, No 10, 1964, pp 1-7. NLL RIS 3229

On Rational Use of Light Equipment on Board Vessels in the Fishery for Saury, by I. I. Sidel'nikov. RUSSIAN, per, Tekhnika Promyshlennogo Rybolobstva i Setesnashnoe Khoziaistvo, VNIRO, Vol 61, 1966, pp 191-196.

\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Irrigation Ditch Digger, by V. Gantman, 4 pp. RUSSIAN, per, Tekhnika v Sel'skom Hozvystve, No 6, 1967, pp 23-25.  
ACSI J-3111  
ID 2204035267

Investigation of Heat Transfer with Condensation of the Flowing Steam on a Horizontal Tube, by L. D. Berman and Yu. K. Tumanov. RUSSIAN, per, Teploenergetika, Vol 9, No 10, 1962, pp 77-83.  
P911340067  
AEC ORNL-TR-1731

Parametric Method in Ship Theory, by A. B. Karpov. 87 pp. RUSSIAN, per, Trudy Gor'kovskogo Politekhnicheskogo Instituta Imeni A. A. Zhdanova, Vol 19, No 2, 1963, pp 1-18. P5003173620  
Dept of Navy NIC tr 2469

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Determining the Optimum Dimensions and Shapes of the Basic Elements of a Propeller-nozzle Complex, by N. A. Golinkovich. 87 pp. RUSSIAN, per, Trudy Gor'kovskogo Politekhnicheskogo Instituta Imeni A. A. Zhdanova, Vol 19, No 2, 1963, pp 19-67. P5003173620  
Dept of Navy NIC tr 2469

Theoretical and Experimental Study of the Blade Movement of a Voith-Schneider Propeller, by Yu. L. Panov. 87 pp. RUSSIAN, per, Trudy Gor'kovskogo Politekhnicheskogo Instituta Imeni A. A. Zhdanova, Vol 19, No 2, 1963, pp 68-87. P5003173620  
Dept of Navy NIC tr 2469

Signaling and Predicting Failures in Discrete Control Devices With Structural Redundancy, by M. A. Gavrilov. RUSSIAN, rpt, Trudy Kongressa. Diskretnyye i Samostraivayushchiyesya Sistemy, 1965, pp 211-220.  
\*FTD-HT-23-1454-67

Liquid-Oxygen Pump NZhK-7, by Yu. A. Miroslavskaya. RUSSIAN, per, Trudy Vsesoyuz. Nauch. Issl. In-t Kislorodnogo Mashinostroyeniya, No 4, 1961, pp 38-42.  
\*FTD-HT-23-1450-67

Oxygen Turbocompressor KTK-7, by A. M. Gorshkov. RUSSIAN, per, Trudy Vsesoyuz. Nauch. Issl. In-t Kislorodnogo Mashinostroyeniya, No 4, 1961, pp 43-64.  
\*FTD-HT-23-1450-67

Piston-type Oxygen Compressor KPK-6, by L. A. Alekseyev, et al. RUSSIAN, per, Trudy Vsesoyuz. Nauch. Issl. In-t Kislorodnogo Mashinostroyeniya, No 4, 1961, pp 65-86.  
\*FTD-HT-23-1450-67

Status and Development of Shipboard Power Plants Abroad, by V. P. Pozdnyakov. RUSSIAN, per, USSR Soviet Shipbuilding, No 2.  
\*Dept of Navy QNI

Recovery of Auto-Tractor Parts, by L. G. Livshits. RUSSIAN, bk, Vosstanovleni avtotraktornykh detalей, 1966.  
\*ACSI J-3553  
ID 2204049667

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

An Example of Reduction in Welding Man-Hours  
During Hull Construction. (3) Some Calculations  
Applied for Estimation of Economics Obtained by  
Technical Improvements in Welding, by W. Matsunaga.  
RUSSIAN, per, Yosetsu Gakkaishi, Vol 32, No 12,  
1963, p 1121.  
NLL 2022.065 (2316)

Electronic Heart of the Automobile, by I.  
Oparin.  
RUSSIAN, per, Za Rulem, No 3, 1966, pp 10-11.  
\*ACSI J-3555  
ID 2204049867

Engine Without Moving Parts, by I. Varshevskiy  
and O. Pik.  
RUSSIAN, per, Za Rulem, No 2, 1967, pp 12-13.  
\*ACSI J-3600  
ID 2204051267

The Mechanization of Specialized Quays for Bulk  
Cargo in the New "Varna-Zapad" (Varna-West) Port,  
by T. Belmoustakov, 7 pp.  
BULGARIAN, per, Korabostroenie i koraboplavanie,  
Jun 1967, pp 14-15 and 18-19.  
JPRS 42739

Some Problems in the Thermodynamic Investigation  
of the Subsonic Stage of an Axial Compressor,  
by K. Celikovsky.  
CZECH, per, Letnany. Vyzkumny a Zkusebni Letecky  
Ustav. Zpravodaj Vzlu, No 1, 1964, pp 23-32.  
\*FTD-HT-23-1573-67C

Some Conclusions from the Solution of an Axial  
Symmetric Approximation of Flow Through a Radial  
Compressor Rotor. Friction Considered, by  
S. Latal.  
CZECH, per, Letnany. Vyzkumny a Zkusebni Letecky  
Ustav. Zpravodaj Vzlu, No 2, 1964, pp 15-19.  
\*FTD-HT-23-1572-67C

Trends in Canning Industry, by P. Rach.  
CZECH, per, Prumysl Potravin, Vol XVII, No 9,  
1966, pp 455-462.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Balkanear-Materials Handling the World Over.  
CZECH, per, Technicky Tydenik, 1967, p. 9.  
\*ACSI J-3599  
ID 2204051167

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

A. The Titan Rotatable Fork Lift; B. Palettes  
with Drive.  
CZECH, per, Technika Prace, No 7, 1967, A. p 543,  
B. p 544.  
\*ACSI J-3550  
ID 2204049467

Thermal Influence on Machine Tools, by G. Philips  
and T. Truyens, 51 pp.  
DUTCH, rpt. Inst. of Tool Tech. & Factory Technique,  
1965. P911335257  
AEC UCEL-Trans-10111

Study and Testing of a Rapid Closing Gate Valve  
for High-Speed Firing Tunnel, by Ph. Rossaz, 24 pp.  
FRENCH, rpt, Franco-German Research Institute  
of Saint-Louis.  
Dept of Navy QNI tr 2421

Packaging in Air Transport, by M. Maurer.  
FRENCH, per, Industries Et Techniques, Jul-  
Aug 1967, No 93, pp 307-312.  
\*ACSI J-3603  
ID 2204051567

Deutsche Verkbra-Zeitung Correspondents Study  
Traffic Patterns in the USSR, 7 pp.  
GERMAN, per, Deutsche Verkehrs-Zeitung, No 87,  
22 Jul 1967, p 12.  
JPRS 42983

Problems of Analysis Connected with the Use  
of Plastics for the Packaging and Storage of  
Foods, by F. Nagy.  
GERMAN, per, Die Nahrung, Vol 6, No 4,  
1962, pp 379-387.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Stresses in a Penderable Medium Forming an  
Infinite Half-Plane Weakened by Two Circular  
Holes, by D. I. Sherman.  
GERMAN, per, Prikladnaya Matematika i Mekhanika,  
Vol 15, 1951, pp 297-316.  
NLL RIS 3029

Continuous Net-Hauling in Stern Trawlers, by D.  
Strobel, M. Laurischkat.  
GERMAN, per, Schiffbautechnik, Vol 16, 1966,  
p 401  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Fundamental Physical Problems in Size Reduction, by, Hans Rumpf, 54 pp.  
GERMAN, rpt, Symposium Zerkleinern, Frankfurt, Apr 10-13, 1962. pp. 1-30  
P911300667  
AEC IA-Tr-67-60

Special Problems in Air Jet Pulverizing, by Hans Schlaug, 44 pp.  
GERMAN, rpt, Symposium Zerkleinera, Frankfurt, Apr. 10-13, 1962. pp 531-55  
P911301167  
AEC IA-Tr-67-61

Method for Separating Gases with the Aid of a Feed Vapor Pump, 8pp.  
GERMAN, Patent 1,203,234, 18 May 1966.  
P911339067  
AEC-Tr-6902

Battery Fed Radiation - Measurement and Warning Device.  
GERMAN, Patent No 12229654, 1 Dec 1966.  
\*ACSI J-3454  
ID 2204046767

Process for Producing Surface-Barrier Detectors for Nuclear Radiation  
GERMAN, Patent No 1218073, 2 June 1966  
\*ACSI J-3437  
ID 2204045067

Progress in Public Works Projects, 6 pp.  
GREEK, np, To Vima, 23 Aug 1967, pp 1, 7.  
JPRS 42861

Air Pollution and Its Detection, by L. Mammarella.  
ITALIAN.  
\*Dept of Navy ONI

The Use of Mechanical Lifts for the Handling of Prefabricated Cement Forms, by E. O. Kuthe.  
ITALIAN, per, La Prefabbricazione, No 6, 1967, pp 217-221.  
ACSI J-3108  
ID 2204035167

The Method of Jumboizing and Deck Elevation of "Kiiharu-Maru" to Increase the Deadweight, by A. Mori and K. Kondo.  
JAPANESE, per, Hitachi Zosen Giho, Vol 25, 1964, p 308.  
NLL 9022.065 (2350)

Scientific  
Mechanical, Industrial, Civil & Marine Engineering (Contd)

Investigation of Automation of Hull Construction Work by Digital Control System, Report No. 1, Digital Control System of Nould Lofting Work, by T. Yana.  
JAPANESE, per, Ishikawajima-Harima Giho, Vol 3, No. 12, 1963, p 55.  
NLL 9022.065 (2312)

Studies on the Thermal Deformation of Machine Tools. The Thermal Deformation of a Lathe, by Y. Yoshida.  
JAPANESE, per, Kikai Shikensho Mokoku, No 16, 1962, pp 174-187.  
P911339467  
AEC UCRL-TRANS-10107

Some Problems of Research in the Machine Building Industry, by S. Lewandowski.  
POLISH, per, Przeglad Mechaniczny, No 3, 1967, pp 66-69.  
\*ACSI J-3549  
ID 2204049367

A. Worm Drive Vehicle, Its Theory of Operation, Basic Theoretical Computations and Results of Tests, by A. Soltynski; B. Dynamics of Tracked Vehicle Motion, by Z. Burdzinski.  
POLISH, per, Technika Motoryzacyjna, No 8, 1967, a. pp 225-231, b. pp 240-246.  
\*ACSI J-3712  
ID 2204052667

Hicks Kmitas and Horses (Mechanical) by R. Roginski.  
POLISH, per, Zolnierz Wolnosci, No 288, 6 Dec 1966, p 2.  
ACSI J-3314  
ID 2204041567

Small Shipyards on the Adriatic Coast Facing Serious Problems, by Blagoje Vlasic, 15 pp.  
SERBO-CROATIAN, per, Brodogradnja, No 4, 1967, pp 151-155.  
JPRS 42869

Activities of Yugoslav Shipyards Discussed, 12 pp.  
SERBO-CROATIAN, per, Brodogradnja, No 4, 1967, pp 170-173.  
JPRS 42869

Construction Problems in Spanish African Ports Discussed, by Fernando Maria de Yturriaga y dou, 5 pp.  
SPANISH, per, Africa, No 308, Aug 1967, pp 8-10.  
JPRS 42912

The Adhesion Characteristic in Locomotives and Some Relevant Factors, by S. Shiro.  
JAPANESE, per, Danki Gakkaizasshi, Vol 80, No 5, 1960, pp 606-614.  
NLL 3774.5 (1442)

Invention and Use of Small Paper-Pulp Machines, by Vu Duc Yen, 7 pp.  
VIETNAMESE, per, Ky-Thuat Cong-Nghiep Nhe, No 6, Jun 1967, pp 3-5.  
JPRS 42888

Water Conservancy Serve Cultivation, by Ha Ke Tan, 6 pp.  
VIETNAMESE, np, Nhan-dan, 9 Aug 1967, p. 2.  
JPRS 42851

#### Methods & Equipment

Classification and Approximate Method for Determining the Profile of Annular Nozzles, by L. V. Gogish and G. Yu. Stepanov.  
RUSSIAN, per, Izv. Akad. Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1966, pp 166-171.  
Dept of Navy/ APL/JHU T-2047

Properties of Infrared Films, by I. I. Breido.  
GERMAN, per, Investiya Glavnoi Astronomicheskoi Observatorii v Pulkove, Vol 24, No 177, 1964, pp 165-170.  
NLL RTS 3149

Adjustable High-Pressure Oil Burner and Some Results of Its Trial on an Open Hearth Furnace, by V. G. Lisiensko and N. I. Kokarev.  
RUSSIAN, per, Investigativ Vuz, Chernaya Metallurgiya, Vol 7, No 12, 1964, pp 127-134.  
NLL RTS 3353

Fish Location by Hydroacoustic Devices, by V. G. Azhazha, E. V. Shishkova.  
RUSSIAN, bk, Poisk Ryby Gidroakusticheskimi Priborami, 1960.  
CFSTI TT 67-51265

Instrument for Measuring the Horizontal Opening of a Trawl Net, by G. R. Baybakov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 11, 1966, pp 55-56.

Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Electric Arc and Motion Picture Projection, by J. Parisot, 26 pp.  
FRENCH, per,  
Dept of Navy ONI tr 2429

Pocket Device for Detecting and Measure - Nuclear Radiation, 14 pp.  
GERMAN, Patent 1198462, 12 Aug 1967.  
ACSI J-3443  
ID 2204045667

Radiation Instrument Device, by N. V. Philips.  
GERMAN, Patent no 1,226,218, 6 Oct 1966  
ACSI J-3442  
ID 2204045567

Methods for Increasing the Efficiency of Rumanian Postal Delivery Service, by Virgil Schiopirian, 5 pp.  
RUMANIAN, per, Telecommunicatii, No 7, Jul 1967, pp 302-303, 314.  
JPRS 42739

#### Missile Technology

Rocket Control, by V.P. Petrov, A.A. Sochivko.  
207 pp.  
RUSSIAN, bk, Upravleniye Raketami, 1963,  
pp 1-264. P100313067-V  
FTD-MT-65-248

Scientific  
Navigation, Communications, Detection &  
Countermeasures

Alternates to Waveguides in Railway Radio-Communication, by I. Lazarenko, 7 pp.  
RUSSIAN, per, Avtomatika-Telemekhanika-Svyaz', No 7, 1967, pp 38-40.  
JPRS 42815

Aircraft Radio Rangefinder, by I. L. Gill'.  
RUSSIAN, per, Geodeziya i Kartografiya, No 2, 1967, pp 34-39.  
ACSI J-3372  
ID 2204042967

Investigation of the Instrumental Errors of the RDG Radio Rangefinder, by V. V. Zlotin and A. A. Genike.  
RUSSIAN, per, Geodeziya I Kartografiya, No 6, 1967, pp 8-15.  
\*ACSI J-3556  
ID 2204049967

Mechanoreceptors, by O. B. Il'inakii.  
RUSSIAN, Mono, Izd. Nauka, Leningrad, 1967.  
Dept of Navy/NMS 2034

All-State Unified Automatic Communications System by V. Siforov.  
RUSSIAN, np, Literaturnaya Gazeta, No 5, 1 Feb 67 p 13, Col 4-7.  
\*FTD-HT-23-1470-67

Shipboard Reception-Indicator "PIRS-1" for use With Phase Radio-Navigation Systems, by A. Pavlov  
RUSSIAN, per, Morskoy Flot, No 4, 1966, pp 24-25.  
\*FTD-HT-23-1466-67

Power of Radar Scanning of Limited Sections of the Earth's Surface, by B. F. Vysotskiy, et al.  
RUSSIAN, per, Moskva. Aviatsionnyy Institut. Teor. i Tekh. Radiolokatsii. Sbornik Statey, No 1, 1966, pp 36-43.  
\*FTD-HT-23-1449-67-C

Coherent Radar Efficiency in the Processing of Partially Coherent Signal Packets, by I. M. Miroshnichenko.  
RUSSIAN, per, Moskva. Aviatsionnyy Institut. Teor. i Tekh. Radiolokatsii. Sbornik Statey, No 1, 1966, pp 97-109.  
\*FTD-HT-23-1449-67-C

All-Union Television Center, by V. Renard, 6 pp.  
RUSSIAN, per, Radio, No 8, 1967, pp 6-8.  
JPRS 43093

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

The "Linda-M" Radiotelephone for Ship Pilots, by V. Konstantinov, 6 pp.  
RUSSIAN, per, Rechnoy Transport, No 7, July 1967, pp 36-38.  
JPRS 42970

The "Academician Knipovich" Sails on Her Maiden Expeditionary Voyage, by D. V. Gershanskovich.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 5, 1966, pp 5-8.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Complex Signals and the Principle of Ambiguity in Radar, by D. Ye. Vakman.  
RUSSIAN, bk, Slozhnye signaly i printsip neopredelennosti v radiolokatsii, 1965, 304 pp.  
\*ACSI J-3508  
ID 2204048167

Main Characteristics of the Hydroacoustical Fish Finding Devices and Their Role in the Scouting Operations, by K. I. Iudanov.  
RUSSIAN, per, Tekhnika Promyshlennogo Rybоловstva i Setesnasnoe Khoziaistvo, VNIRO, Vol 61, 1966, pp 197-226.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Expansion and Renovation of Georgian Telephone Service, by K. Kavtaradze, 5 pp.  
RUSSIAN, per, Zarya Vostoka, 30 Aug 1967, p 2.  
JPRS 42815

Electrical Radiation Warning Device.  
GERMAN, Patent No 1179308, 8 Oct 1964.  
\*ACSI J-3450  
ID 2204046367

Portable, Battery Operated Measuring Device for Detecting Radioactivity; Portable, Battery-Operated Instrument to Detect Radioactive Radiation, 5 pp.  
GERMAN, Patent 1196304, 8 Jul 1967  
ACSI J-3447  
ID 2204046067

Ambiguity Characteristics of Coded Pulse Radar, by T. Sakamoto.  
JAPANESE, per, Sogoshikenjo-Nempo, Vol 22, 1963, pp 37-48.  
\*Dept of Navy/ APL-JHU J-1058

Scientific  
Nuclear Science & Technology

"Shells" in Deformed Nuclei, by V. M. Strutinskiy, 69 pp.  
RUSSIAN, rpt, I. V. Kurchatov Inst. of Atomic Energy, 1967. P911335467  
AEC IA-Tr-67-36

a) The Use of SGD-8 Glass Dosimeters for Radiation from the IGR Pulse Reactor; b) Nuclear Research Production and Use of Isotopes in Belgium and the Netherlands; c) International Theoretical Physics Center in Trieste; d) Tenth Anniversary "Atoms for Peace" Exhibition; e) Canadian Scientists in the USSR, by S. A. Sharoyko; b) Ye. Mamnov; c) V. G. Solov'yev; d) V. Mikhaylin; 22 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 21, No 3, 1966, pp 218-219; 224-228; 228-229, 228-30; 231.  
Dept of Navy QNI tr 2420

Fast Boiling Reactors with Fuel in the Form of A Molten Salt, by Mekhislav Taube, 7 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 22, No 1, Jan 1967, pp 10-13.  
Dept of Navy QNI tr 2361

On the Theory of Coherent Transverse Stability of a Bunch of Charged Particles, by Ya. S. Derbenev and N. S. Dikanskiy, 8 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 22, No 3, Mar 1967, pp 191-194.  
Dept of Navy QNI tr 2455

Lifetime and Dimensions of an Electron (Positron) Beam in an Accumulator at Low Current, by V. I. Auslender, 7 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 22, No 3, Mar 1967, pp 200-203.  
Dept of Navy QNI tr 2456

Dependence of the Lifetime and Dimensions of a Beam on the Number of Particles in the Accumulator, by L. Auslender, 8 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 22, No 3, Mar 1967, pp 203-206.  
Dept of Navy QNI tr 2457

Injection and Accumulation of Positrons, by V. L. Auslender, 11 pp.  
RUSSIAN, per, Atomnaya Energiya, Vol 22, No 3, Mar 1967, pp 206-210.  
Dept of Navy QNI tr 2458

Automatic Analyzers of Radiochemical Media.  
RUSSIAN, bk, Automaticheskie Analizatory Sostava Radiokhimicheskikh Sred, 1965.  
CFSTI  
AEC tr-6715

Scientific  
Nuclear Science & Technology (Contd)

The Stability of Chapman-Jouguet Detonations, by V. V. Pukhnachev.  
RUSSIAN, per, Dokl. Akad. Nauk SSSR. (Gidromekhanika), Vol 149, No 4, 1963, pp 798-801.  
P911336267  
AEC SC-T-67-0941

Measurement of the Energy of Short Light Pulses, by N. N. Borisov and M. G. Rezanova.  
RUSSIAN, per, Izmeritel'naya Tekhnika, No 4, 1967, pp 85-86.  
Dept of Navy/ APL/JHU T-2046

Measurement of the Energy Spectrum of Primary Cosmic Rays in the  $10^{10}$ - $10^{14}$  eV Region with the Help of AES Proton-1, by N. G. Grigorov, O. M. Kovrzhnykh.  
RUSSIAN, per, Izv. Akad. Nauk SSSR. Ser. Fiz., Vol 30, No 11, 1966, pp 1760-1762.  
P911338867  
AEC ORNL-TR-1730

The Natural Radioactivity of the Biosphere, by L. A. Pertsov.  
RUSSIAN, bk, Prirodnaya Radioaktivnost' Biosfery, 1964.  
AEC tr-6714

Survey of Isotopic Content, Properties and Uses of Rare Earths, by D. N. Trifonov.  
RUSSIAN, per, Problema Redkikh Zemel, Ch 8, 1962, pp 135-150.  
NLL RCS 3245

Radiation Phenomena in Dielectrics and Semiconductors.  
RUSSIAN, bk, Radiatsionnye Yuzleniya v Dielektrikakh i Poluprovodniakakh, 1968.  
PLENUM PRESS

An Apparatus for Measuring the Moisture Content of Rocks by Nuclear Magnetic Resonance by Ch. Gulyev.  
RUSSIAN, per, Rayev. GEOFIZ., No 10, 1966, pp 122-129.  
P911340967  
AEC UCRL-TRANS-10105

Electrotransport and Diffusion in the In-Sb System, by Yu. P. Konnov and I. A. Lagidson.  
RUSSIAN, per, Shornik Moskovskii Inst. Stali i Sloyev, No 41 290, 1966.  
P911341867  
AEC IS-TRANS-58

Scientific  
Nuclear Science & Technology (Contd)

Experimental Burial of Radioactive Wastes of Low Activity Level in Clay Soils at Moscow Station, by I. A. Sobolev, L. M. Khomchik, et al, 11 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Investigation of Sorption and Migration of Radioactive Isotopes in Soils and Rocks of Various Compositions, by V. I. Spitsin, V. D. Balukova, 11 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Study of Conditions for Burial of Radioactive Cement in Soils, by Yu. M. Bazhenov, et al.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Problem of Heat Generation in Underground Storage of Solid Radioactive Wastes, by N. N. Verigin, P. V. Zimakov, et al, 19 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Possibility and Expediency of Melting Calcinated Radioactive Wastes in the Ground, by V. G. Verezgunov, K. P. Zakharova, et al.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Scientific Premises for the Usage of Deep Formations for Storage of Liquid Radioactive Wastes, by V. I. Spitsin, et al, 15 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Scientific  
Nuclear Science & Technology (Contd)

Some Results of Operation of Pilot Scale Installation for Disposal of Liquid Radioactive Wastes in Deep Formations of Earth's Crust, by S. I. Zakharov, et al, 15 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

The Central Storage Area for Radioactive Wastes in the Czechoslovakian SSR, by I. Golub, I. Kortus, 12 pp.

RUSSIAN, rpt, Simpozium po Udaleniyu Radioaktivnykh Otkhodov v Zemlyu (Mezhdunarodnoye Agenstvo po Atomnoy Energii, Yevropeyskoye Agenstvo po Yadernoy Energii), 29 May-2 June 1967.

JPRS 42565

Study of Mitotic Cycles by Autoradiography, by M. G. Chumak.

RUSSIAN, per, Tsitologiya, Vol 5, 1963, pp 24-35.  
P911302167

AEC UCRL-TRANS-10108

Excitation of Inert Gases in Electron-Atomic Collisions, II. Neon, by P. V. Faltsan, I. P. Zapesochny.

RUSSIAN, per, Ukrainian Fiz. Zh., Vol 11, No 11, 1966, pp 1222-1230.  
P911336867

AEC ORNL-TR-1711

Ventilation in Work with Radioactive Substances, by V. M. Krupchatnikov, 250 pp.

RUSSIAN, rpt, Ventilyatsiya Pri Rabotakh s Radioaktivnymi Veshchestvami, 1964.  
P500292667-V

Dept of Navy NIC tr 2432

Nuclear Spectroscopy and the Structure of the Atomic Nucleus, (Conference at Khar'kov), 5 pp.

RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 111-122.

JPRS 42671

Nuclear Physics and Interaction of Particles With Material.

RUSSIAN, bk, Yadernaya Fizika i Vzaimodesitvie Chastits s Veshchestvom, 1968.

PLENUM PRESS

Radioactive Kryptonates in Science and Technology, by J. Tolgyessy and V. Jesenak.

CZECH, per, Jaderná Fyzika, Vol 12, No 6, 1966, pp 213-220.

P911337467

AEC NP-TR-1563

Scientific  
Nuclear Science & Technology (Contd)

Development of the Shielding for the Rapsodie Reactor, by W. Chwetzoff, F. Dubois. FRENCH, per, Bul. Inform. Sci. Tech., No 110, Dec 1966, pp 3-29. P911338167 AEC BNWL-TR-22

Kinetics of Transuranium Element Oxidation-Reduction Reaction in Solution, by Daniel Gourisse, 49 pp. FRENCH, rpt, Cinétique des Réactions d'Oxydo-Reduction des Éléments Transuraniens en Solution. (Thesis submitted to Faculty of Science of l'Université de Paris) P911304067 AEC ORNL Tr-1644

Atomic Energy Commission - 1966 Annual Report, 197 pp. FRENCH, per, Commissariat a L'Energie Atomique, 1966. \*ACSI J-3655 ID 2204051767

The Nuclear Propulsion Plant for the OTTO HAHN. GERMAN, pp 1-13. \*Dept of Navy ONI

Stable Isotope Dilution Analysis, by Z. Dobkowski 16 pp. GERMAN, per, Analytical Chemistry, No 10, 1965, PP 519-530. P944372867 NSTIC 1844

The Significance of the Adjoint Flux in Reactor Kinetics, by E. A. Fischer, 45 pp. GERMAN, rpt, Gesellschaft fur Kernforschung mbH, Karlsruhe, Jan 1967. P911342367 AEC EURFNR-282

Recombinational and Retardation (Bremsstrahlung) Plasma Radiation (Free-Bound and Free-Free Electron Transitions in a Field of Positive Ions), by L. M. Biberman and G. E. Norman. GERMAN, per, Journal of Quantitative Spectroscopy and Radiative Transfer, Vol 3, No 3, 1963, pp 221-245. NLL RIS 3239

Fission Yields of Cidine Isotopes 131 to 135 in the Spontaneous Fission of Uranium-238, by H. Menke and G. Herrmann. GERMAN, per, Radiochim. Acta, Vol 6, No 2, 1966, pp 76-80. P911301767 AEC NP-TR-1555

Scientific  
Nuclear Science & Technology (Contd)

Investigations in the Systems of Nickel-Beryllium-Boron and Cobalt-Beryllium-Boron, by H. J. Becher and H. Neidhard.

GERMAN, per, Z. Anorg. Allg. Chem., Vol 344, 1966, pp 125-139. P911336067 AEC SC-T-67-0927

X-Ray Determination of Short-Range Order in Binary Alloys, by A. Munster and K. Sagel. GERMAN, per, Z. Phys. Chem., New Series 12, 1957, pp 145-167. P911338667 AEC ORNL-TR-1733

Device for Measuring Hard X-Ray Gamma Radiation, by Bernhard Gross, 5 pp. GERMAN, Patent No 1,101,350, May 25, 1961. pp. 1-11. P911335567 AEC -SC-T-64-0944

Dosimeter to Read X-, Gamma-, or Neutron Radiation. GERMAN, Patent No 1,187,329, 18 Feb 1965 ACSI J-3439 ID 2204045267

Radiation-Measurement Device. GERMAN, Patent No 1213539, 31 Mar 1966. \*ACSI J-3436 ID 2204044967

Windowless Counter Tube to Detect Radioactive Substances, 7 pp. GERMAN, Patent 1212646, 17 Mar 1966. ACSI J-3452 ID 2204046567

Heterogeneous Nuclear Reactor. GERMAN, Patent No 1,830,495; Siemens-Schuckert-  
werke Aktiengesellschaft. P911339267 AEC-TR-6894

Heterogeneous Nuclear Reactor. GERMAN, Patent No 1,905,603; Siemens-Schucker-  
werke Aktiengesellschaft. P911338967 AEC-TR-6895

Sublimation Pressures and Some Thermodynamic Properties of Zirconium and Hafnium Tetrachlorides, by K. Funaki and K. Uchimura. JAPANESE, per, Denshi Kagaku-shi, Vol 33, 1965, pp 167-171. P911340267 AEC LA-TR-67-63

Scientific  
Nuclear Science & Technology (Contd)

Foil Measurements of Neutron Flux Distribution and Spectre in Iron-Water Shields, by J. Miyakoshi and S. Kawamoto.  
JAPANESE, per, Hitachi Zosen Giho, Vol 27, No 2, 1966, pp 72-78.  
P911337367  
AEC NP-TR-1562

Nuclear Radiation and Its Effects on Various Substances, by Cezary Pawlowski.  
POLISH, per, Postopy Fizyki, Vol 15, 1964, pp 323-339.  
P911341267  
AEC UCRL-TRANS-1354

Physics

Heat and Mass Transfer in the Neighborhood of the Stagnation Point during Injection and Suction of Various Gases through the Surface of a Body, by N. A. Anfimov.  
RUSSIAN, per, Akad. Nauk SSSR, Izv., Mekhan. Zhidkosti i Gaza, No 1, 1966, pp 22-31.  
Dept of Navy/ APL/JHU T-2051

Investigation of Friction Under Unsteady State High Speed Conditions, by V. N. Goryunov.  
RUSSIAN, per, AN SSSR. Nauchnyy Sovet po Treniyu i Smazochnym Materialam. Novoye v Teorii Treniya, 1966, pp 91-97.  
\*FTD-IIT-23-1488-67

Dependence of Light Scattering in the Atmosphere on Wavelength, by E. V. Pyaskovskaya-Fesenkova.  
RUSSIAN, per, Akad. Nauk SSSR, Doklady, Vol 80, No 4, 1951, pp 595-598.  
\*Dept of Navy/ APL/JHU J-1067

On the Nature of the Optical inhomogeneity of Quartz, by G. V. Kleshchev.  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 174, No 3, 1967, pp 585-587.  
\*NASA TT F-11,197

Investigation of the Efficiency of a Heat Shield Over a Plane Surface During Injection Through Two Tangential Slots, by V. M. Repukhov, O. A. Bogachuk-Kazachuk.  
RUSSIAN, per, Dopovidi Ak Nauk UkrSSR, Seriya A, Fiziko-Tekhnichni ta Matematichni Nauki, Vol 29, No 2, 1967, pp 180-183.  
NASA TT F-11,178

Scientific  
Physics (Contd)

Study of Recombination Radiation from p-n Gallium Antimonide Junctions, by I. V. Krykova.  
RUSSIAN, per, Fizika p-n Perekhodov, 1966, pp 310-315.  
\*FTD-IIT-23-1475-67

Method of Measuring the Optical Constants of Opaque Crystals by the Drude Method in Micro-Areas of Polished Sections, by V. G. Feklichev.  
RUSSIAN, per, Geologiya Rudnykh Massivov i Mestoroshdenii, No 4, 1962, pp 106-112.  
NLL RTS 3497

Shock Tube for Investigation of One-Dimensional Waves in Liquids, by L. I. Vorotnikova, 13 pp.  
RUSSIAN, per, Goreniya i Vzryva, No 1, pp 5-14.  
Dept of Navy ONI tr 2422

Investigation of the Stochastic Characteristic of Vibrations of a String With Quadratic Non-linearity, by F. M. Izrailev, 14 pp.  
RUSSIAN, per, Institut Yadernoy Fiziki Siberskogo Otdeleniya, Akademiya Nauk SSSR, 1966.  
P911304667  
AEC ORNL Tr-1686

The Cellular Structure of a Convection Current in a Vertical Cylinder of Circular Cross-Section, by E. I. Slavnova.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal, No 8, 1961, pp 80-86.  
P911347567  
AEC IS-TRANS-60

Interaction of a Plasma with a Transverse Magnetic Field, by V. G. Zykov et al, 11 pp.  
RUSSIAN per, Izследovaniye Plazmennykh Sustavov Sinevnikov, Kiev, 1965. pp. 27-66.  
P911278467  
AEC-NP-TR-1540

Oscillations of a Vessel Containing Viscous Fluid, by F. L. Chernous'ko.  
RUSSIAN, per, Izvestiya Akademii Nauk SSSR, Mekhanika i Zhidkosti, Vol 1, 1967, pp 58-66.  
NASA TT F-11,167

Scientific  
Physics (Contd)

Hydrodynamics of the Critical Phase, by  
Yu. P. Krasnyy.  
UKRAINIAN, per, Ukrayins'kyy Fizyichnyy Zhurnal,  
No 1, Vol 12, 1967, pp 122-128.  
NASA TT F-11,103

Flow Field Between a Shock Wave and a Lateral  
Surface of a Blunted Cone Moving At a High  
Supersonic Speed, by E. R. Abramovskiy and  
V. N. Chepurnov.  
RUSSIAN, per, VUZ, IZV., Aviatsionnaya Tekhnika,  
No 1, 1967, pp 135-142.  
\*Dept of Navy/ APL/JHU J-1061

Study of the Base-Pressure Fluctuations Behind  
a Cone in a Supersonic Flow, by Yu. A. Panov,  
A. I. Shvets.  
RUSSIAN, per, Akad. Nauk SSSR, Izv., Mekhan.  
Zhizdkosti i Gaza, No 6, 1966, pp 129-135.  
Dept of Navy/ APL/JHU T-2058.

The Effect of Pressure on the Vibrating Propa-  
gation of Flames in Tubes, by V. V. Kurzhunov.  
RUSSIAN, per, Inzhenerno - Fizicheskiy Zhurnal,  
Vol 7, No 2, 1964, pp 103-107.  
NLL RTS 3217

Technology of Treating Deeply Concave Aspheric  
Surfaces, by D. A. Kholmukov, 6 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy: Priborostroyeniye, Vol X, No 3,  
1967, pp 96-99.  
JPRS 43002

The GD-314, a Small Phototachymeter, by  
Yu. V. Popov, B. I. Utenkov, et al.  
RUSSIAN, per, Kartografiya, No 1, 1967, pp 8-13.  
ACSI J-3374  
ID 2204043167

Measurements by the SVV-1 Phototachymeter With  
a Dual Analyzer, by Ye. I. Panshin.  
RUSSIAN, per, Kartografiya, No 1, 1967, pp 14-16.  
ACSI J-3374  
ID 2204043167

A Difference Method for Calculating the Non-  
stationary Heating of Structures, by V. V.  
Chekalin.  
RUSSIAN, per, Metody Raschetov Temperaturnykh  
Polei i Teploizolyatsii Letatel'nykh Apparatov  
Izd-vo Mashinostroenie Moscow, 1966, pp 77-101.  
\*Dept of Navy/ APL/JHU J-1078

Scientific  
Physics (Contd)

Experience in Operating a Laser on a Satellite,  
by N. G. Basov, et al.  
RUSSIAN, per, Kosmicheskie Issledovaniya,  
Vol 5, No 4, 1967, pp 608-616.  
\*Dept of Navy APL/JHU J-1077

Nonlinear Optics.  
RUSSIAN, bk, Nelineinaya Optika, 1968.  
PLENUM PRESS

Phase Diagram of the System Ti-P, by  
V. N. Yeremenko, V. Ye. Listovnichiy.  
RUSSIAN, rpt, Novye Issledovaniya Titanovykh  
Splavov, 1965, pp 20-24.  
NASA TT F-11,162

Nucleon Associations in Light Nuclei, by  
V. G. Neudachin, Yu. F. Smirnov.  
RUSSIAN, bk, Nuklonnye Assotsiatsii v Legkikh  
Yadrakh, 1968.  
Plenum Press

Rib-Reinforced Plates and Shells, by G. N. Savin,  
N. P. Fleishman.  
RUSSIAN, bk, Plastinki i Obolochki s Rebrami  
Zhestkosti, 1964.  
CFSTI TT 67-51364  
NASA TT F-427

Shock Waves Far From Their Source, by  
L. D. Landau.  
RUSSIAN, per, Prikladnaya Matematika i  
Mekhanika, Vol 9, No 4, 1945, pp 286-292.  
\*NASA TT F-11,246

Investigation of the Base Pressure Near the  
Trailing Edge of Axisymmetric Bodies in a  
Supersonic Flow, by Yu. A. Panov and A. I.  
Shvets.  
RUSSIAN, per, Prikladnaya Mekhanika, Vol II,  
No 6, 1966, pp 105-111.  
Dept of Navy/ APL/JHU T-2048

Propagation of Long and Superlong Radio Waves  
in the Earth-Ionosphere Waveguide Channel, by  
S. T. Rybachek and E. M. Gyunninen, 11 pp.  
RUSSIAN, per, Problemy difraktsii i resprostra-  
neniya voln, Vol VI, No 5, 1966, pp 115-124.  
JPRS 42898

Behavior of Nuclear Fuel Under Irradiation  
(Investigation of Thin Layers of Irradiated  
Uranium Dioxide), by V. N. Golyanov, et al.  
RUSSIAN, rpt, Proceedings of the International  
Conference on Peaceful Uses of Atomic Energy  
3rd, Geneva, No 11, 1964, pub 1965, pp 485-495.  
\*FTD-HT-23-1490-67

Scientific  
Physics (Contd)

Determination of the Interfacial Area in the Gas-liquid System on Contact Plates, by A. I. Rodinov, A. M. Kashnikov.  
RUSSIAN, per, Khimicheskaya Promyshlennost', No 10, 1964, pp 17-21.  
NLL RTS 3487

The Precipitation of Deposits in a Turbulent Current, by S. S. Sarkisyan.  
RUSSIAN, per, Ruglovye Protsessy Akademii Nauk SSSR, 1958, pp 345-349.  
NLL RTS 3178

Special Relativity Theory, by V. A. Ugarov.  
RUSSIAN, per, Spetsial'naya Teoriya Otnositel'nosti, 1968.  
Plenum Press

Tables of Characteristic Frequencies of Infrared Spectra of Heteroorganic Compounds, by G. F. Bol'shakov, E. A. Glebovskaya.  
RUSSIAN, bk, Tablitsy Kharakteristicheskikh Chastot Infrakrasnykh Spektr Geteroorganicheskikh Soedinenii "Khimiya", 1968.  
PLUM PRESS

Tables of Spectral Lines of Neutral and Ionized Atoms, by A. R. Striganov, N. S. Sventitskiy.  
24 pp.  
RUSSIAN, bk, Tablitsy Spektral'nykh Liniy Neytral'nykh i Ionizovannykh Atomov, 1966, pp 1-17.  
Dept of Navy NRL tr 1126

Investigation of Drag and Heat Transfer During Air Motion in Divergent and Convergent Nozzles, by P. N. Romanenko.  
RUSSIAN, per, Teplo- i Massoperenos. III. Obshchiye Vopravoy Teploobmena, 1963, pp 349-360.  
NASA TT F-11,221

Thermodynamic Properties of Individual Substances. Volume 1: Calculation of the Thermodynamic Properties, by A. V. Gurvich, G. A. Khachkurov, et al. 856 pp.  
RUSSIAN, bk, Termodinamicheskiye Svoystva Individual'nykh Veschestv; V Dvukh Tomakh, Tom I; Vychisleniye Termodinamicheskikh Svoystv, Chaps. 1-15, 1962, pp 5-436 P100313967-V  
FTD-HT-66-251

Thermodynamic Properties of Individual Substances. Volume 1: Calculation of the Thermodynamic Properties, by A. V. Gurvich, G. A. Khachkurov, et al. 856-1789 English pgs.  
RUSSIAN, bk, Termodinamicheskiye Svoystva Individual'nykh Veschestv; V Dvukh Tomakh, Tom I; Vychisleniye Termodinamicheskikh Svoystv, Chaps. 16-27, 1962, pp 437-858 P100313967-V  
FTD-HT-66-251

Scientific  
Physics (Contd)

Thermodynamic Properties of Individual Substances. Volume 1: Calculation of the Thermodynamic Properties, by A. V. Gurvich, G. A. Khachkurov, et al. 1790-2409 English pgs.  
RUSSIAN, bk, Termodinamicheskiye Svoystva Individual'nykh Veschestv; V Dvukh Tomakh, Tom I; Vychisleniye Termodinamicheskikh Svoystv, Chaps. 28-31, pp 859-1162 P100313967-V  
FTD-HT-66-251

Thermodynamics of Ion Exchange.  
RUSSIAN, bk, Termodinamika Ionnogo Obmena, 1968.  
Plenum Press

Formation of Magnetic Field Pulses With Short Fronts in Inflector and Deflector Devices, II, by I. O. Grishnev, O. H. Ilyin.  
RUSSIAN, per, Ukrainskiy fizichniy zhurnal, Vol 8, No 8, 1963, pp 869-876.  
NLL RTS 2826

The Effect of Surface Recombination Processes on the Kinetics of Photoconductivity of Semiconductors, by V. K. Malyutenko and V. O. Romanov.  
RUSSIAN, per, Ukrains'kiy Fizichnyy Zhurnal, Vol 12, No 4, 1967, pp 600-606.  
\*Dept of Navy/ APL/JHU J-1074

Some Problems of Cavitation, by K. K. Shal'nev, 9 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, June 1967, pp 68-74.  
JPRS 42671

Investigation of Electron-Hole Gas of High Density Present in Semiconductors, I, by S. B. Anokhin, et al.  
RUSSIAN, per, Vestnik Leningradskogo Universiteta, Ser. Fiz. Khim., No 4, 1967, pp 36-41.  
\*Dept of Navy/ APL/JHU J-1075

Interaction of the Glow Front with a Transverse Magnetic Field in an Electrodynamic Shock Tube, by G. I. Goryaga, A. I. Kokorev, 9 pp.  
RUSSIAN, per, Vestn. Mosk. Univ. No. 4, Jul-Aug 1966, pp 3-8.  
Dept of Navy ONI tr 2482

Mass-Spectrometric Analysis of Vapour Composition by Means of a Double Effusion Chamber, by L. N. Gorokhov.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta, Seriya Matematiki, Mekhaniki, Astronomii, Fiziki, Khimii, No 6, 1958, pp 231-233.  
NLL RTS 3358

Scientific  
Physics (Contd)

Theory of Diffusion in Solutions Near the Critical Point, by M. P. Kovalenko.  
UKRAINIAN, per, Ukrayins'kyy Fizichnyy Zhurnal, Vol 12, No 1, 1967, pp 10-14.  
NASA TT F-11,102

Some New Possibilities of Studying Polymeric Compounds by Gas Chromatography, by V. G. Berezkin.  
RUSSIAN, per, Vysokomolekul. Soedineniya, Vol 7, No 1, 1965, pp 185-186.  
NLL RTS 3141

Polarization of Metallic Electrodes in Cyanide Solutions of Silver, by A. T. Vagramyan and N. N. Balashova.  
RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol 24, 1950, pp 96-105.  
NLL RTS 3010

Temperature Tests on the Electrical Conductivity and Photoconductivity of Monochalogenosubstituted Benzenes, by R. G. Romanets.  
RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol 40, No 5, 1966, pp 1102-1105.  
ACSI J-2868  
ID 2204029267

Standard Heats of Formation of the Carbides of Tantalum of the Phase TaC, by A. N. Kornilov, I. D. Zalikin.  
RUSSIAN, per, Zhurnal Fizicheskoi Khimii, Vol 41, 1967, pp 346-350.  
P911324667  
AEC LA-TR-67-41

Study of the Stability of a Plane Stationary Detonation Wave, by V. V. Pukhnachev.  
RUSSIAN, per, Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi Fiziki, No 4, 1965, pp 79-85.  
Dept of Navy/ APL/JHU T-2057

Collection of Articles, 209 pp.  
RUSSIAN, per, Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoy Fiziki, No 4, pp 3-136.  
F100313287-V  
FTD-MT-64-88

Damping of Shock Waves in Nonuniform Media, by I. S. Ryzhov.  
RUSSIAN, per, Zhurnal Prikladnoi Mekhanika i Tekhnicheskoy Fiziki, No 2, 1961, pp 15-35.  
NASA TT F-11,247

Scientific  
Physics (Contd)

The Effectiveness of a Gas Curtain in a Turbulent Boundary Layer, by E. P. Volchkov and V. Ya. Levchenko.  
RUSSIAN, per, Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi Fiziki, No 5, 1965, pp 142-146.  
Dept of Navy/ APL/JHU T-2065

Approximate Solution of the Stationary High Frequency Induction Discharge in a Closed Volume, by V. A. Gruzdev, et al.  
RUSSIAN, per, Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoy Fiziki, No 1, 1967, pp 143-150.  
\*FTD-MT-24-332-67

Effect of the Conditions Under Which Calcium Tungstate is Obtained on its Luminescence, by M. I. Tombak, A. M. Gurvich, 7 pp.  
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 6, No 4, pp 564-568.  
ACSI J-2572  
ID 2204021967

Production of an Inverse Population by Mixing of a Hot Plasma with a Cold Gas, by L. V. Popov, 10 pp.  
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 5, No 2, Aug 1966, pp 188-194.  
JPRS 42891

Heat Transfer in Turbojet Combustion Chambers and Experimentation on Film Cooling Effects, by Chung-tse Tu.  
CHINESE, per, Chi hsieh kung ch'eng hsueh pao, Vol 13, No 4, 1965, pp 1-22.  
\*Dept of Navy/ APL/JHU J-1062

Interferometric Holography in Diffuse Light, by S. Lowenthal and Y. Belvaux.  
FRENCH, per, Academie des Sciences, Comptes Rendus, Vol 23, 1966, pp 904-907.  
Dept of Navy/ APL/JHU T-2040

Precise Measurement of Velocities by Means of a Laser Interferometer, by Jean-Pierre Taran.  
FRENCH, per, La Recherche Aerospatiale, No 119, 1967, pp 51-56.  
\*Dept of Navy/ APL/JHU J-1076

Comparison of Spin-Stabilization with Three-Axis Stabilization for a Solar Probe, by W. Schaefer.  
GERMAN, rpt, 1967, pp 1-29.  
NASA TT F-11,199

Scientific  
Physics (Contd)

Telemetry of Satellites by Laser and Its Geodesic Applications, by R. Bivas.  
FRENCH, rpt, Service d'Aeronomie, Centre National de la Recherche Scientifique, No 121. Paper Presented at the International Meeting on Dynamic Methods of Geodesy by Means of Satellites, held on 22-25 May 1967 in Paris, 21 pp.  
NASA TT F-11,192

Contribution to the Study by Gas Absorption of the Texture of Powdered Solids (Application to the Alumina, Glucina and Different Gels and Oxides), by Francise Rouquerol. 110 pp.  
FRENCH, rpt, Thesis Presented to the Faculty of Sciences, University of Paris for the Degree of Doctorate of Physical Sciences, 20 Dec 1965. P500333167-V  
Dept of Navy/NIC Tr No 2483

On Elementary Acts with Two Quantum Jumps, by Maria Goppert-Mayer.  
GERMAN, per, Annalen der Physik, Vol 4, No 3, 1931, pp 273-294.  
Dept of Navy/ APL/JHU TG 230-T523

Anisotropy in the Thermal Conductivity and Thermoelectric Force of Regular Metals, (Tungsten) in a Transverse Magnetic Field at 20°K, by E. Gruneisen, H. Adenstedt.  
GERMAN, per, Annalen de Physik, Series 5, Vol 29, 1937, pp 597-604.  
NASA TT F-11,079

Windowless Counter Tube to Detect Radioactive Substances, by Farbenfabriken Bayer, GFRMAN, per, Auslegerschrift 1 212 646, 17 March 1966.  
FSTC (ABC) J-3452

Particle Loss Mechanisms in a Weakly Ionized Toroidal Magnetoplasma, by F. Karger.  
GERMAN, rpt, Dissertation, Institut fur Plasmaphysik, Garching bei München, IPP 2/56, Feb 1967, 44 pp.  
NASA TT F-11,113

Induction Coils as Measuring Elements for Fast High-Current Gas Discharges, by W. Koppendorfer, 28 pp.  
GERMAN, rpt, Institute fur Plasmaphysik, IPP 1/2  
P911277467  
ABC IA-Tr-67-38

Scientific  
Physics (Contd)

The Heat Exchange on the Flat Plate with Parallel and Counter Flow, by W. Tolle.  
GERMAN, per, Kael'tech. -Klim., 18, No 2, 1966, pp 55-59.  
P911338767  
AEC ANL-TRANS-473

The Prediction of Nocturnal Temperature Minima By Means of a Balancing Calculation, by W. Muldner.  
GERMAN, per, Met. Rdsch., Vol 14, No. 6, 1966, pp 170-175.  
RAE 1226

On Interpretation of (n,2n) Effective Cross Section, by P. Hille, B. Karlik et al., 21 pp.  
GERMAN, per, Mitt. des Institute fur Radiumforschung, No. 573, 1965  
P911278267  
AEC BNL-Tr-135

Contribution to the Quantum Theory of Thermogalvanomagnetic Phenomena in Metals and Semiconductors. Part I, by P. S. Zyryanov.  
GERMAN, per, Physica Status Solidi, Vol 6, 1964, pp 401-408.  
NASA TT F-11,155

Quantum Theory of Thermogalvanomagnetic Phenomena in Metals and Semiconductors, Part II, by P. S. Zyryanov.  
GERMAN, per, Physica Status Solidi, Vol 7, 1964, pp 223-230.  
NASA TT F-11,154

Quantum Theory of Thermogalvanomagnetic Phenomena in Metals, and Semiconductors. Part III. Comparison of Theory with Experiment, by G. I. Guseva. P. S. Zyryanov.  
GERMAN, per, Physica Status Solidi, Vol 8, 1965, pp 759-773.  
NASA TT F-11,156

Propagation of Helicon Waves in InSb and InAs, by H. Flietner, et al.  
GERMAN, per, Physica Status Solidi, Vol 14, No 1, 1966, pp 181-187.  
\*FTD-IFT-23-1571-67

The Symmetrical Optimum, by C. Kesseler.  
GERMAN, per, Regelungstechnik, Vol 11, 395-400, Vol 12, 432-436, 1958.  
RAE 1216

Scientific  
Physics (Contd)

Acceleration of Plasma, by W. Bieger, H. Gresser.  
GERMAN, per, Zeitschrift fur Naturforschung, Vol 18a, 1963, pp 453-459.  
Dept of Navy/ AFL/JHU T-2054

Rotational Structure of the Raman Bands of Polyatomic Molecules, by G. Flaczek and E. Teller.  
GERMAN, per, Ztschr. f. Physik, Vol 88, 1933, pp 209-258.  
P911339767  
AEC ORNL-TR-1741

Optical Research on Electrochemically Activated and Passivated Metallic Mirrors, by L. Tronstad.  
GERMAN, per, Zeitschrift fuer Physikalische Chemie, Series A, Vol 142, No 4, 1929.  
\*ACSI J-3507  
ID 2204048067

On the Thermodynamic Properties of the Solid Aluminum-Zinc System, by H. Corsepius and A. Munster.  
GERMAN, per, Ztschr. f. Physik. Chem., New Series 22, 1959, pp 1-19.  
P911341167  
AEC ORNL-TR-1736

Theoretical and Experimental Investigation of Flow Around a Cascade of Blades in Axial Compressors, by Orazio Scrofani.  
ITALIAN, per, Aerotecnica, Vol 46, Dec 1966, pp 29-234.  
P911338267  
AEC-N-TRANS-25

On the Applications of Infrared Imagery for Geothermal Investigations, by Hirokazu Hase, Kyuya Matsuno.  
JAPANESE  
\*ACSI J-3631  
ID 2204052067

Study of Tungsten Oxides which Possess High Dielectric Constants (Second Report), by Naruyuki Nagasawa.  
JAPANESE, per, Denki Kagaku, Vol 23, 1948, pp 57-59.  
ACSI J-3176  
ID 2204036567

Scientific  
Physics (Contd)

A Study of the Methods for Analyzing Multi-layer Gamma-Ray Shields, by Iwao Kataoka, 196 pp.  
JAPANESE, per, Senpaku Gijutsu Kenyujyo, No 1, 1966, pp 161-343.  
P911353267-V  
AEC-ORNL-TR-1671

Laser Interferometer, by W. Wolinski, et al.  
POLISH, per, Poniary, Automatyka, Kontrola, No 12, 1966, pp 59-61.  
\*FTD-HT-23-1459-67

Phase Correlation Between Alternating Sound Wave Pressure and Sonoluminescence, by P. Gunther, E. Heim.  
GERMAN, per, Zeitschrift fur angewandte Physik, Vol 11, No 7, 1959, pp 274-277.  
P911340367  
AEC NP-TR-1568

Propulsion & Fuels

Volatility of Aviation Fuels at Increased Pressure, by I. N. Dyatlov, 9 pp.  
RUSSIAN, per, Aviatsionnyye Dvigateli, 1963, pp 106-116.  
ACSI J-2805  
ID 2204027367

Studies of Physical Gas Dynamics, by A. A. Predvoditelev.  
RUSSIAN, bk, Issledovaniya po Fizicheskoy Gasodinamike, 1966, pp 1-224.  
NASA TT F-105

Contraction Coefficient of Jets, by Yu. P. Ivanilov, Ye. V. Semenov.  
RUSSIAN, per, Izvestiya Ak Nauk SSSR, Mekhanika Zhidkosti i Gaza, Vol 1, 1967, pp 118-122.  
NASA TT F-11,150

Some Problems of Gas Dynamics for Jets in a Transverse Flow during Combustion, by V. A. Kosterin, E. V. Rzhevskiy.  
RUSSIAN, per, Investiya VUZ, Aviatsionnaya Tekhnika, No 1, 1966, pp 130-139.  
Dept of Navy/ AFL/JHU T-2050

The Influence of the Viscosity Ratio and of the Rate of Displacement on the Character of Motion of the Water-Oil Contact and on the Oil Production Rate of a Formation, by B. E. Kislitsenko.  
RUSSIAN, per, Neftegaz. Khimiya, No 11, 1963, pp 35-40.  
MLL RIB 2714

Scientific  
Propulsion & Fuels (Contd)

The Scaling Fuels for Turbojet and Gas-turbine Compustion Systems, by Chen Tan Chih.  
CHINESE, per, Chinese Journal Mechan. Engng., No 11, 4, 1963, pp 41-63.  
\*FTD-HT-23-1483-67

Future Prospects of Various Reactor Types for Ship Propulsion, by J. I. Sonneveld.  
DUTCH, per, TNO Nieuws, No 210, 18(8), Aug 1963, pp 445-448. P500293167  
Dept of Navy ONI tr 2012-b

Space Technology

Minimum Time for an Earth-Mars-Earth Flight with an Unregulated Low-Thrust Engine, by R. F. Avramchenko, V. M. Bezmenov, 14 pp.  
RUSSIAN, per, Kosmicheskiye Issledovaniya, Vol V, No 3, 1967, pp 339-347.  
JPRS 42928

The Flight of Luna.  
RUSSIAN, per, Pravda, Vol 22, No. 12, 1966, Vol 25, No. 12, Vol 26, No. 12, 1966, Vol 27, No. 12, 1966, Vol 28, No. 12, 1966, Vol 31, No. 12, 1966.  
RAE Library Press 111

Space Meteorologists, by M. Andronov.  
RUSSIAN, np, Pravda, 26 Oct 1967, p 3, Col 2-5.  
\*FTD-HT-23-1574-67

ORBITA Space System (Kosmicheskaya Sluzhba Orbity).  
RUSSIAN, np, Trud, 28 Feb 1967, P 4, Col 1-2.  
\*FTD-HT-23-1467-67

Transmission Methods for Satellite Links, by W. Arens,  
GERMAN, per, N. T. Z., Vol 1, 1967, pp 7-11.  
RAE 1236

Rocket Flight, by R. Nebel.  
GERMAN, b&w, Raketenflug, 1932, pp 1-47.  
NASA TT F-11,173

Scientific  
Miscellaneous

Current Events,  
RUSSIAN, per, Meteorologiya i Gidrologiyam No 6, 1967, pp 118-126.  
JPRS 42636

Soviet Scientists - Pioneers of the Theory of Fishing with Light, by A. N. Shabanov.  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, pp 41-44.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

In the Ministry of Fisheries of the USSR. The Structure of the Central Board of the Ministry of Fisheries of the USSR,  
RUSSIAN, per, Rybnoe Khozyaystvo, Vol 42, No 1, 1966, p 90.  
Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

Letter to the Editor. (Recommendations for New Fishing Gear.), by N. Resvanov.  
RUSSIAN, per, Rybnoe Khozyaistvo, Vol 43, No 7, 1967, pp 48.  
\*Dept of Interior  
Fish and Wildlife Service  
BCF, Bureau of Foreign Fisheries

The Tenth Anniversary of the Siberian Department of the AS USSR, by M. A. Lavretiyev, 11 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 5-13.  
JPRS 42671

International Scientific Relations, Assistance to the Developing Countries, by Ye. D. Lebedkina, 5 pp.  
RUSSIAN, per, Vestnik Akademii Nauk SSSR, Vol 37, No 6, Jun 1967, pp 84-87.  
JPRS 42671

National Scientific Research Center, 164 pp.  
FRENCH, per, Report d'Activite, Oct 1964 - Oct 1965, pp 111-155, 231-239, 245-252, 281-283, 292,294, 327-331, 337-361, 365-369.  
Dept of Navy ONI tr 2426

The Ries Colloquium on 25 and 26 June 1965 at Tübingen, by E. Preuss.  
GERMAN, per, Neues Jahrbuch für Mineralogie, No 9-11, 1965, pp 257-260.  
AGIC TC-1230

INFORMATION RECEIVED DURING NOVEMBER

ON COVER-TO-COVER TRANSLATIONS

Acta Biochimica Polonica, Vol 15, No. 1-4, 1968.  
CFSTI TT 68-50009/1-4

Acta Medica Jugoslavica, Vol 22, No. 1-3, 1968.  
CFSTI TT 68-50052/1-3

Acta Physiologica, Vol 19, No. 1-6, 1968.  
\*CFSTI TT 68-50008/1-6

Acta Poloniae Pharmaceutica, Vol 25, No. 1-6,  
1968.  
CFSTI TT 68-50003/1-6

Archivum Immunologiae ET Therapiae Experimentalis  
Vol 16, No 1-6, 1968.  
\*CFSTI TT 68-50005/1-6

Arhiv Biologich Nauka, Vol 20, No. 1-4, 1968.  
CFSTI TT 68-50053/1-4

Atomnaya Energiya, Vol 22, No. 1, Jan 1967.  
Consultants Bureau

Atomnaya Energiya, Vol 22, No. 2, Feb 1967.  
Consultants Bureau

Elektrokhimiya. Vol 3, No. 4, April 1967.  
CB

Elektrosvyaz, No. 3, March 67.  
Institute of Electrical and Electronics Engineers

Endokrynologia Polska, Vol 19, No 1-6, 1968.  
CFSTI TT 68-50007/1-6

Fizika Tverdogo Tela, Vol 9, No. 6, Dec 1967.  
The Faraday Press, Inc.

Fiziologiya Rastenii, Vol 14, No. 2, Mar-Apr 67.  
CB

Folia Morphologica, Vol 27, No. 1-4, 1968.  
CFSTI TT 68-50002/1-4

Izmeritel'naya Tekhnika, No. 1, Jan 67.  
CB

Izmeritel'naya Tekhnika, No. 2, Feb 67.  
CB

Izmeritel'naya Tekhnika, No. 3, March 67.  
CB

Iz Ak Nauk SSSR, Atmosfera i Okeanologicheskiy, Vol 3,  
No. 5, May 1967.  
American Geophysical Union

Izvestiya Akademii Nauk SSSR Fizika Zemli, No. 4,  
April 1967.  
American Geophysical Union

Izvestiya Akademii Nauk SSSR Fizika Zemli, No. 5,  
May 1967.  
Am Geophysical Union

Izvestiya Akademii Nauk USSR Seriya Fizicheskaya, Vol  
30, No. 12, 1966.  
Columbia Technical Translations

Izvestiya Akademii Nauk SSSR Seriya Khimicheskaya,  
No. 12, December 66.  
CB

Izvestiya VUZ Radiofizika, Vol 9, No. 2, Mar-Apr  
1966.  
The Faraday Press, Inc.

Lijecnicki Vjesnik, Vol 90, No. 1-12, 1968.  
CFSTI TT 68-50051/1-12

Medycyna Doswiadcza i Mikrobiologia, Vol 20,  
No. 1-4, 1968.  
CFSTI TT 68-50004/1-4

Meteorologiya I Gidrologiya, No. 7, July 1967.  
J.P.R.S. 42,625

Meteorologiya I Gidrologiya, No. 8, 1967.  
J.P.R.S. 43,349

Optika I Spektroskopija, Vol 22, No. 6, June 67.  
Optical Society of Am.

Polski Archiwum Medycyny Wewnętrznej, Vol 7,  
No. 1-6, 1968.  
\*CFSTI TT 68-50006/1-6

Polski Przeglad Radiologii Medycyny Nuklearnej,  
Vol 32, No. 1-6, 1968.  
CFSTI TT 68-50001/1-6

Problemy Kibernetiki, No. 18, 1967.  
J.P.R.S. 41,797

Problemy Peredachi Informatsiy, Vol 3, No 2,  
1967.  
JPRS 42439

Problemy Peredachi Informatsiy, Vol 3, No 3,  
1967,  
JPRS 43364

Przeglad Epidemiologiczny, Vol 22, No 1-4,  
1968.  
\*CFSTI TT 68-50000/1-4

Radiobiologiya, Vol 7, No. 1, Nov 67.  
AEC-tr-6886.

Radiotekhnika, No. 3, March 1967.  
I. E. E. E.

Radiotekhnika I Electronika, No. 4, 1967.  
I. E. E. E.

Sovetskaye Zdravookhraneniye, No. 8, 1967.  
JPRS 42,819

Sovetskaye Zdravookhraneniye, No. 9, 1967.  
JPRS 43,105

Tekhnicheskaya Kibernetika, No. 4, 1967.  
JPRS 43, 249

Tekhnika I Vooruzheniye, No. 6, June 1967.  
ACSI J-3101

Tekhnika I Vooruzheniye, No. 9, Sept. 1967.  
\*ACSI J-3702

Tekhnika I Vooruzheniye, No. 10, Nov 67.  
ACSI J-3827

Tyl I Snabzheniye, No. 9, 1967.  
\*ACSI J-3646

Tyl I Shabsheniye, No. 10, Oct 67.  
ACSI J-3776

Tyl I Snabzheniye Sovetskikh Vooruzhennykh Sil,  
No. 8, Sept 67  
ACSI J-3336

Uspekhi Fizicheskikh Nauk, Vol 91, Nos. 3-4, 1967.  
AM Inst. of Phys.  
Vol 10, No. 2, 1967

Vestnik Akademii Meditsinskikh Nauk SSSR, No. 8,  
Aug 1967.  
J.P.R.S. 42,634

Vestnik Akademii Meditsinskikh Nauk, No. 9, Sept  
1967.  
JPRS 43,328

Vestnik Akademii Meditsinskikh Nauk SSSR, No. 10,  
Oct 1967.  
JPRS 43, 424

Vestnik Akademii Nauk SSSR, Vol 37, No. 5, 1967.  
JPRS 43,330

Vestnik Protivovozdushoy Oborony, No. 7, 1967.  
ACSI J-3145

Vestnik Protevovozdushnoy Oborony, No. 9, 1967.  
\*ACSI J-3647

Vestnik Protivovozdushnoy Oborony, No. 10, Oct 1967.  
ACSI J-3789

Voyenno Meditsinskiy Zhurnal, No. 2, Mar 67.  
ACSI J-2103

Voenno-Meditsinskiy Zhurnal, No. 7, 1967.  
ACSI J-3146

Voyenno Meditsinskiy Zhurnal, No. 9, 1967.  
\*ACSI J-3648

Voyenno Meditsinskiy Zhurnal, No. 10, Nov 67.  
ACSI J-3788

Voyennyy Vestnik, No. 10, Oct 67.  
ACSI J-3535

Zhurnal Eksperiment'noi I teoreticheskoi  
Fiziki, Vol 52, No. 4, 1967  
American Institute of Physics  
Vol 25, No. 4, 1967

Zhurnal Obshchel Khimii, Vol 36, No. 12, 1966.  
CB

Zhurnal Organicheskoi Khimii, Vol 2, No. 12,  
1966 Dec.  
CB

Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi  
Fiziki.  
The Faraday Press, Inc.

Zhurnal Tekhnicheskoi Fiziki, Vol 12, No. 6,  
Dec 1967.  
American Institute of Physics

# SOVIET ATOMIC ENERGY

A translation of Atomnaya Energiya

Volume 22, Number 1

January, 1967

## CONTENTS

Engl./Russ.

Study of an Autoresonance Method of Accelerating Particles by Electromagnetic Waves - A. A. Vorob'ev, A. N. Didenko, A. P. Ishkov, A. A. Kolomenskii, A. N. Lebedev, and Yu. G. Yushkov . . . . .	1	3
Using L. S. Pontryagin's Maximum Principle in Minimum-Critical-Size and Maximum-Power Reactor Problems - T. S. Zaritskaya and A. P. Rudik . . . . .	5	6
Fast Boiling Reactors with the Fuel in the Form of a Fused Salt - Mieczislaw Taube . . . . .	10	10
Sodium Technology and Equipment of the BN-350 Reactor - A. I. Leipunskii, M. S. Pinkhasik, Yu. E. Bagdasarov, R. P. Baklushin, V. M. Poplavskii, A. A. Rineiskii, E. N. Chernomordik, V. I. Sharanov, I. K. Petrovichev, V. V. Stekol'nikov, S. M. Blagovolin, K. B. Grigor'ev, and I. D. Dmitriev . . . . .	14	13
Role of Condensate Decontamination in Single Circuit Atomic Power Stations - T. Kh. Margulova . . . . .	21	19
Study of the Zones of Damage Caused by Fission Fragments of Heavy Nuclei - V. K. Gorshkov, L. N. L'vov, and P. A. Petrov . . . . .	26	24
Radiation Stability of Low-Melting Organic Coolants in the Liquid and Solid Phases - V. A. Khramchenkov, I. I. Chkhelidze, Yu. N. Alekseenko, and N. Ya. Buben . . . . .	30	27
Decomposition of Uranyl Chloride and Its Interaction with Uranium Dioxide in Molten NaCl-KCl - M. V. Smirnov, V. E. Komarov, and A. P. Koryushin . . . . .	34	30
Measuring the Mean Lifetime of Thermal Neutrons from a Small Specimen - V. V. Miller . . . . .	38	33
<b>ABSTRACTS</b>		
Accelerator Tubes for Heavy-Current Machines - E. A. Abramyan and V. A. Gaponov . . . . .	43	39
The Problem of Maximum Reactor Power - B. P. Kochurov and A. P. Rudik . . . . .	44	40
A Correction to the Spherical-Harmonics Method for Solving the Transport Equation - V. A. Zharkov, V. P. Terent'ev, and T. P. Zorina . . . . .	45	40
Activation of Spherical Specimens in a Thermal Neutron Field - V. A. Zharkov and V. P. Terent'ev . . . . .	46	41
Generalization of the Albedo Method - P. Wertesz . . . . .	48	42
<b>LETTERS TO THE EDITOR</b>		
Parametric Instability Accompanying Interaction of a Modulated Beam with a Plasma - V. D. Shapiro . . . . .	49	44
A Semistatistical Method for Measuring the Effective Delayed-Neutron Fraction - A. I. Mogil'ner, G. P. Krivelev, E. K. Malyshev, S. A. Morozov, and D. M. Shvetsov . . . . .	52	46

Available from Consultants Bureau

Eng./Russ.

Heat Transfer in Free-Convection Sodium Boiling - V. I. Deev, G. P. Dubrovskii, L. S. Kokorev, I. I. Novikov, and V. I. Petrovichev . . . . .	56	49
Experimental Study of Acceleration of an Emergency-Shutdown Rod - R. R. Ionaitis, and L. I. Kolganova . . . . .	58	51
Some Criteria of the Speed of Neutron-Activation Analysis - E. R. Kartashev, O. K. Nikolaenko, I. D. Danil'chenko, R. G. Gambaryan, A. S. Shtan', and N. N. Bobrov-Egorov . . . . .	62	54
Choice of Irradiator for Treatment of Loose Material - A. V. Bibergal' and V. N. Primak-Mirolyubov . . . . .	64	55
Correlation Between the Concentrations of Natural and Fission-Fragment Radioactive Aerosols in the Surface Atmospheric Layer - A. È. Shem'i-zade . . . . .	67	58
Measurement of Background Exposure to Population of USSR Cities, 1964-1965 Period - I. A. Bochvar, A. A. Moiseev, T. I. Prosina, and V. V. Yakubik . . . . .	69	59
Relative Natural Radioactivity of FEU-49 Photomultipliers - Yu. V. Sivintsev, V. A. Kanareikin, and L. N. Serdyuk . . . . .	71	60
NEWS OF SCIENCE AND TECHNOLOGY		
[International Conference on Isochronous Cyclotrons - V. P. Dmitrievskii and V. V. Kol'ga . . . . .	64]	
Ukraine's Second Conference on Ordering of Atoms and Its Effect on Properties of Alloys - V. I. Ryzhkov and B. I. Nikolin . . . . .	75	67
[Uranium Industry of the Capitalist Countries in 1965 - V. D. Andreev (Based on European Nuclear Energy Agency, World Uranium and Thorium Resources, Paris, 1965; USAEC Annual Report to Congress for 1965, Washington, 1966, p.71; etc.) . . . . .	68]	
[Basel Nuclex-66 International Exhibit of Atomic Industry-Academician Vikt. I. Spitsyn and A. N. Ermakov . . . . .	73]	
BRIEF COMMUNICATIONS		
Conference of COMECON Specialists . . . . .	76	76
Polish Summer School on Imperfections in Crystals and Crystal Research Techniques . . . . .	77	77
BOOK REVIEWS . . . . .	78	78

NOTE

This index lists all material that appears in the original Russian journal. Items originally published in English or generally available in the West are not included in the translation and are shown in brackets. Whenever possible, the English-language source containing the omitted items is given.

The Russian press date (podpisano k pechati) of this issue was 1/4/1967.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# SOVIET ATOMIC ENERGY

A translation of *Atomnaya Energiya*

Volume 22, Number 2

February, 1967

## CONTENTS

### ARTICLES

	Engl./Russ.
Potential of the Uranium Atom and Calculation of the Ionization Energy—L. P. Kudrin and M. Ya. Mazeev . . . . .	85 83
Calculation of the Dissociation Energy of Calcium and Uranium Monofluorides —L. P. Kudrin and M. Ya. Mazeev . . . . .	90 85
Synthesis of Isotopes of Element 102 with Mass Numbers 254, 253, and 252—V. L. Mikheev, V. I. Ilyushchenko, M. B. Miller, S. M. Polikanov, G. N. Flerov, and Yu. P. Kharitonov . . . . .	93 90
Calculation of the Passage of Fast Neutrons through Graphite—L. M. Shirkin . . . . .	101 97
Analytical Solution of the Problem of Neutron Thermalization in a Heavy Moderator —M. V. Kazarnovskii . . . . .	104 100
Calculating the Spatial and Energy Distribution of Thermal Neutrons in a Heterogeneous Reactor—M. V. Fedulov . . . . .	112 108
Determination of the Effective Multiplication (Breeding) Factor of Neutrons from the Measured Differential Reactivity—T. S. Dideikin and B. P. Shishin . . . . .	119 113

### ABSTRACTS

Slowing Down of Neutrons in a Hydrogenous Medium—Yu. A. Platovskikh . . . . .	123 118
Diffraction of Slow Neutrons by Stratified Systems—V. F. Turchin . . . . .	124 119
Shielding Properties of Stone Concrete—V. B. Dubrovskii, M. Ya. Kulakovskii, P. A. Lavdanski, V. I. Savitski, V. N. Solov'ev, and A. F. Mirenkov . . . . .	125 119
Shielding Properties of Borated Heat-Resistant Chromite Concretes—D. I. Broder, V. B. Dubrovskii, M. Ya. Kulakovskii, P. A. Lavdanski, V. I. Savitski, V. N. Solov'ev, and A. F. Mirenkov . . . . .	126 121
Heat Release in Borated Concrete Shields—V. B. Dubrovskii, M. Ya. Kulakovskii, P. A. Lavdanski, V. I. Savitskii, and V. N. Solov'ev . . . . .	127 121
Differential Albedo of a Narrow Beam of Fast Neutrons from a Semiinfinite Water Scatterer—L. Ya. Gudkova, V. G. Zolotukhin, V. P. Mashkovich, and A. I. Mis'kevich . . . . .	128 122
Use of Albedo Boundary Conditions to Reduce the Region of Iteration—V. S. Shulepin . . . . .	130 123
Variable-Thickness, Premoderating, High-Sensitivity Neutron Detector—Yu. A. Vakarin, I. N. Veselovskii, B. S. Gribov, A. V. Kolotkov, V. G. Kuznetsov, and V. A. Sakovich . . . . .	130 124
Thermal Column Converter for Shielding Studies—V. P. Mashkovich, A. N. Nikolaev, B. I. Sinitayn, V. K. Sakharov, and S. G. Tsypin . . . . .	132 125

### LETTERS TO THE EDITOR

Stopping Power of Nickel for Protons and $He_3$ Ions in the Energy Range 20 to 95 keV —G. F. Bogdanov, V. P. Kabnev, F. V. Lebedev, and G. M. Novikov . . . . .	133 126 (Contd.)
--	---------------------

Available from Consultants Bureau

ATOMNAYE ENERGIYA  
Vol 22, No. 2, Feb 1967

(continued)

Engl./Russ.

Nuclear Properties of the Isotopes of Element 102 with Mass Numbers 255 and 256		
-V. A. Druin, G. N. Akap'ev, A. G. Demin, Yu. V. Lobanov, B. V. Fefilov, G. N. Flerov, and L. P. Chelnokov . . . . .	135	127
Beam of Helium Ions with a Current of 200 mA and an Energy of 70 keV		
-N. V. Pleshivtsev, V. I. Martynov, G. G. Tomashev, Yu. F. Grigorovich, and B. K. Shembel' . . . . .	137	128
Pulse Method for Measuring how Neutron Spectra of Finite-Sized Water Samples		
Deviate from the Equilibrium Maxwell Spectra-S. B. Stepanov . . . . .	140	131
Dose Rate of $\gamma$ -Radiation due to Capture in Water-V. M. Mordashev . . . . .	143	133
Measurement of Reactor Absorption Cross Sections of Gd <sup>154</sup> and Gd <sup>158</sup> -E. I. Grishanin, G. M. Kukavadze, V. I. Lependin, L. Ya. Memelova, I. G. Morozov, V. V. Orlov, and D. T. Pilipets . . . . .	144	133
Turbulent Thermal Diffusivity in a Current of Liquid with High Thermal Conductivity		
-V. M. Borishanskii and T. V. Zablotskaya . . . . .	147	135
Calculation of the Stored Energy in Irradiated Graphite, from X-ray Data		
-M. S. Koval'chenko and V. V. Ogorodnikov . . . . .	150	138
Radon Emanation from Uraniferous Ores and Minerals Immersed in Liquid		
-M. I. Prutkina and V. L. Shashkin . . . . .	153	140
NEWS OF SCIENCE AND TECHNOLOGY		
VI International Conference on Nuclear Photography-N. A. Perfilov . . . . .	155	142
Engineering Cost Factors and Outlook for the Use of Field Radiometric Moisture Gages and Soil Density Gages in Crop Land Improvement-V. A. Emelyanov and V. I. Sinitsyn . . . . .	158	144
Train of Glove Boxes for Handling $\gamma$ -Active Materials-G. I. Lukishov, K. D. Radionov, and G. U. Shcherbenok. . . . .	161	146
Chemical Uses of Nuclear Reactors and Particle Accelerators in the USA		
-B. G. Dzantiev, and A. K. Pikaev . . . . .	163	147
Delegation of Soviet Medical Scientists Visits USA-E. I. Vorob'ev . . . . .	166	149
LAEA Discussion of Radioactive Wastes Disposal-G. Apollonov . . . . .	169	151
BOOKS REVIEWS. . . . .	170	152
ERRATA . . . . .	192	141

The Russian press data (podpisano k pechati) of this issue was 2/3/1967.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# SOVIET ELECTROCHEMISTRY

A translation of Elektrokhimiya

Volume 3, Number 4

April, 1967

## CONTENTS

Engl./Russ.

Regularities Governing the Electrodeposition of Cobalt from Sulfate Solutions at Temperatures above 100°C — A. T. Vagramyan, M. A. Zhamagortsyan, Yu. M. Polukarov, and L. A. Uvarov .....	363	419
Reactivity of Nitrocompounds. IV. Kinetics of the Decomposition of Aromatic Nitroalcohols in an Alkaline Medium. Calculation — V. N. Leibzon, V. M. Belikov, and L. M. Kozlov .....	369	424
Conditions of the Electrodeposition of Titanium Film in a Chloride Melt. II. Influence of Certain Parameters of Electrolysis on the Rate of Deposition of Titanium Film from a Chloride Melt — V. P. Elyutin, B. S. Lysov, and Yu. Ya. Andreev .....	377	432
The Method of Potential Hysteresis Loops and its Application to the Electrodeposition of Copper in the Presence of Organic Additives — M. Ya. Popereka and V. N. Lebedeva ..	381	436
Ionization of Oxygen in a Mixture with CO <sub>2</sub> on a Partially Immersed Silver Electrode in Melts of Alkali Metal Carbonates — Yu. M. Pashkov and G. S. Tyurikov .....	386	441
Study of the emf of Galvanic Cells Including Bulk and Heterogeneous Sulfonic Acid Cation-Exchange Membranes and Solutions of Calcium and Magnesium Chlorides — Z. S. Alagova, E. A. Materova, and N. N. Nemtsova .....	391	446
Study of Electrode Semiconducting Catalysts. IV. Study of Semiconducting Properties and Structure of the Solid Solutions of CuO-NiO Oxides — O. K. Davtyan, V. Ya. Shvartsman, L. A. Kalinets, and Yu. A. Tkach .....	395	451
Investigation of the Adsorption of Hydrogen and Oxygen on Finely Divided Platinum and Rhodium — M. R. Tarasevich, K. A. Radyushkina, and R. Kh. Burshtein .....	399	455
Adsorption and Ionization of Oxygen on Nickel in Alkali — Ku Ling-ying, N. A. Shumilova, and V. S. Bagotskii .....	404	460
Effect of the State of the Substrate on the Roughness of Certain Electrolytic Deposits — N. Ya. Kovciskii and N. P. Gnutin .....	410	467
Volta Potential in the Adsorption of Iodine by Films of Semiconducting Organic Polymers. II. — V. B. Margulis and L. I. Boguslavskii .....	414	472
Some Aspects of the Design and Operation of Potentiostats — J. Przyluski, A. Switalski, and Z. Wrzeszcz .....	418	477
Influence of Temperature on the Behavior of Platinized Platinum in Solutions of Methanol — V. F. Stenin and B. I. Podlozhchenko .....	422	481
Capillary Hysteresis in Porous Media. II. Calculation of Secondary Capillary Equilibrium — V. F. Pastushenko, V. S. Markin, and Yu. A. Chizmadishev .....	429	489
<b>BRIEF COMMUNICATIONS</b>		
A Method for the Preparation of Microelectrodes for Electrochemical Investigations — L. N. Kodomskoi, V. M. Rudoi, and A. I. Levin .....	437	499

( Contd)

Available from Consultants Bureau

	Engl./Russ.
Electrode Properties of Ion-Exchange Membranes in Nonaqueous Solvents - A. V. Gordievskii, È. L. Filippov, and V. S. Shterman . . . . .	438 500
Comparison Electrodes in the Study of the Adsorption of Oxygen, Water Vapor, and Naphthalene by the Condensor Method of Measuring the Contact Potential Difference. - T. V. Kalish . . . . .	441 503
Adsorption of Beryllium Hydroxide on a Mercury Cathode - S. Ya. Vasina, A. Yu. Volosova, È. A. Maznichenko, and A. I. Fedorova . . . . .	444 506
Measwurement of the Differential Capacity of Galium at High Electrolyte Concentrations - N. B. Grigor'ev . . . . .	449 511
Capacitance of the Helmholtz Layer on a Germanium Electrode - Yu. V. Pleskov . . . . .	451 513
Activity Coefficients and Osmotic Coefficients of Rubidium and Cesium Chlorides in Water at the Freezing Point - R. I. Mostkova, Yu. M. Kessler, and I. D. Safonova . . . . .	454 516
Cathodic Reduction of Platinum Dioxide - R. V. Marvet and O. A. Petrii . . . . .	456 518
Mechanism of Operation of Gas Electrodes from a Plastic (Hydrophobic) Basis. I. Semi-Immersed Electrodes - N. V. Osetrova and V. S. Bagotskii . . . . .	459 521
Veniamin Grigor'evich Levich - On the Occasion of his Fiftieth Birthday - A. N. Frumkin, P. A. Rebinder, and R. R. Dogonadze . . . . .	462 525

The Russian press date (podpisano k pechatii) of this issue was 3/22/1967.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# TELECOMMUNICATIONS and RADIO ENGINEERING

1967

NUMBER 3

ELEKTROSVYAZ,  
No 3, Mar 67  
PART 1  
TELECOMMUNICATIONS  
Volume 21

	Page
A. I. Abolits: Energy Relations when Frequency-Divided Signals Are Sent Via a Nonlinear Relay Station . . . . .	1
I. S. Andronov: Noise Immunity of Relative Double Phase-Shift Telegraph (RDPT) Binary Channel Diversity Reception . . . . .	7
V. F. Nesteruk and N. N. Porfir'yeva: Statistical Decision Theory Applied to Problems of Discrete Signal Reception by the Adjacent Element Comparison Method . . . . .	14
A. A. Voronin: Correlation Treatment of Grouped Error Correcting Codes . . . . .	17
L. M. Mashbits: Low-Capacity Ionospheric Scatter Links . . . . .	20
A. M. Model': Design of Waveguide and Coaxial Bandpass Filters with Directly-Coupled Cavities . . . . .	24
Ch. Ts. Tsydygov and N. Ts. Gomboyev: Variation of the Mean Hourly Level of a USW Signal on Mountain Routes in Transbaikal . . . . .	28
L. G. Dorfman: Theory of Plane Symmetric 12-Poles . . . . .	34
V. S. Andreyev, G. M. Vaizburg and A. Ya. Fedorov: Experimental Study of Tunnel Diode Oscillators . . . . .	40
V. M. Dudchenko-Dukko and Yu. S. Rasshcheplyayev: A Transistor Low-Frequency Amplifier with Adjustable and Reversible Gain . . . . .	45
A. B. Tsaliovich: Calculation of the Coupling Impedance of a Trunk Communication Coaxial Cable . . . . .	49
<b>BRIEF COMMUNICATIONS</b>	
V. P. Komolov and I. T. Trofimenco: PSK Signal Reception Using Subharmonic Parametric Oscillators . . . . .	54
I. S. Andreyev: Study of the Service Area of a Future Television Station by Helicopter . . . . .	57
<b>LETTERS TO THE EDITOR</b>	
N. N. Solov'yev: Author's Reply to the Comments of O. G. Lositakii, Yu. P. Sukhov and R. B. Ulinich (On N. N. Solov'yev's paper "Aging tolerances and reliability parameters for communication equipment components," "Elektrosvyaz", 1966, 7) . . . . .	59
In Our Forthcoming Issues . . . . .	60
New Books . . . . .	61

PART 2  
RADIOELECTRONICS

(Contd.)

No. 3, Mar 67

V. I. Vladimirov: The Spectrum of a Sinusoidal Oscillation Phase Modulated by a Narrow-Band Normal Random Process . . . . .	63
V. L. Danilov: Obtaining a Variable Phase Shift by Splitting-Summation of the Input Voltage . . . . .	68
V. G. Alekseyeva: Determination of the Frequency Characteristics of a System from the Transient Characteristics . . . . .	72
G. Z. Ayzenberg and V. G. Yampolskiy: Passive Repeaters in Radio Relay Links, Part 1 . . . . .	80
N. P. Kras'yuk: Reflection of Microwaves from a Region with a Nonuniform Distribution of Hydrometeors . . . . .	88
G. A. Bibik: A Ferrite Device . . . . .	94
V. L. Anisimov: Calculation of the Qualitative Properties of Transistor Amplifiers with Feedback . . . . .	97
Ya. G. Rodionov and B. D. Zabegairov: Passage of Low Fluctuation Noise Through a Frequency-Modulation Receiver with Tracking Tuning . . . . .	100
S. I. Yevtyanov and G. E. Red'kin: Dependence of the Shape of the Pulse in a Modulator with an Artificial Line on the Load and the Additional Inductance . . . . .	103
A. D. Artym and A. A. Zeleskov: Frequency Stability of Crystal Oscillators . . . . .	111

- 97 -

(Contd.)

Available from Institute of Electrical and Electronics Engineers

FIZIKA TVERDOGO TELA EDITORIAL BOARD  
 A. I. Ansel'm Ch. B. Lushchik  
 A. S. Borovik-Romanov A. N. Orlov  
 L. N. Dobretov A. F. Prikhod'ko  
 L. P. Gor'kov A. R. Regel'  
 O. V. Konstantinov S. M. Ryvkin  
 M. I. Kurnfeld G. A. Smolenskii  
 (Associate Editor) V. M. Tuchkovich  
 L. I. Korovin B. K. Vainstein  
 (Secretary) V. S. Varilov  
 M. I. Korsunskii L. P. Vozzhagin  
 M. A. Krivogas S. N. Zhurkov  
 G. V. Kurdyumov (Editor)  
 I. M. Lifshits Leningrad State University  
 V. P. Zhuse

# Soviet Physics SOLID STATE

A Translation of "Fizika Tverdogo Tela"

(Russian Original Vol. 9, No. 6, pp. 1573-1860, June, 1967)

Vol. 9, No. 6, pp. 1239-1466

December, 1967

## CONTENTS

	RUSS. PAGE	PAGE
Ferro- and Paramagnetic Resonance of Divalent Europium Oxides. A. A. Samokhvalov, V. S. Babushkin, and V. G. Bamburov.....	(E/T) 1239	1573
Absorption Spectra and Indirect Optical Transitions in $\text{BiI}_3$ Single Crystals. V. I. Vashchenko and V. B. Timofeev .....	(E) 1242	1577
Vibrational Instability of Impurity Centers and Nonsymmetric Distortions of the Lattice. N. N. Kristofel' and G. S. Zavt.....	(T) 1246	1582
Combinatorial Method for Calculating the Mössbauer Hyperfine Spectrum. S. V. Karyagin .....	(T) 1252	1590
Consideration of Partial Phonon Reflection from Boundaries in the Calculation of the Low-Temperature Thermal Conductivity of Dielectrics. A. E. Kazakov and E. L. Nagaev.....	(T) 1255	1594
Theory of Paramagnetic Absorption in an Isolated Spin-System. A. A. Samokhin .....	(T) 1257	1597
Influence of the Crystal Field on Angular $\gamma - \gamma$ -Correlation in Paramagnets. F. P. Khaimovich .....	(T) 1261	1603
X-Ray Determination of Dispersion Curves of the Ionic Crystals KCl and KI. V. I. Iveronova, Parangtopo, and A. P. Zvyagina .....	(E) 1265	1609
Influence of the Conductivity on the Elastic Stiffness of Hexagonal ZnS. I. B. Kobyakov .....	(E) 1269	1613
Importance of Waterproofing Glass for Its High-Strength State. V. A. Bershtein and F. F. Vitman.....	(E/T) 1272	1618
A Diffractometer Investigation of the Structure of Amorphous Gallium Using Electron Diffraction with a Retarding Field. B. T. Boiko, L. S. Palatnik, and A. S. Derevyanchenko .....	(E) 1278	1625
Dislocation Structure of Deformation Rosettes Obtained on Sodium Chloride Single Crystals at $T = 4.2^\circ\text{K}$ . O. V. Klyavin, A. V. Stepanov, and I. S. Kotousova .....	(E) 1283	1631
Investigation of Defects Generated during the Heat Treatment of Oxygen-Bearing Silicon. I. L. Shul'pina, L. V. Lainer, M. G. Mill'vidskii, and E. P. Rashevskaya .....	(E) 1291	1641
Influence of Ionizing Radiation on the Electrical and Paramagnetic Properties of Organic Semiconductors Based on Polyvinylacetate. A. D. Grishina, A. V. Vannikov, S. G. Ashin, and N. A. Bakh.....	(E) 1298	1651
Magnetoresonance Faraday Effect in the Antiferromagnets $\text{MnF}_3$ and $\text{RbMnF}_3$ . N. F. Kharchenko and V. V. Eremenko .....	(E) 1302 (Contd)	1655

Copyright © 1967 by the American Institute of Physics

Available from The Faraday Press, Inc.

RUSS.  
PAGE PAGE

Influence of Thermal Oscillations on Electron Scattering in the Dynamical Theory Approximation. I. B. Kvashnina, V. B. Molodkin, and E. A. Tikhonova . . . . .	(T)	1306	1660
Changes in Dislocation Structures during Preparation of Foil Specimens for Electron Microscope Transmission Studies. M. M. Myshiyev . . . . .	(E)	1312	1669
Capture of Holes by Tl <sup>+</sup> Centers in KI:Tl. R. A. Kink and G. G. Liid'ya . . . . .	(E)	1316	1674
Spin-Lattice Relaxation of Localized Electron Centers with Hyperfine Interaction. M. F. Deigen and I. I. Zheru . . . . .	(T)	1320	1679
Paramagnetic Resonance of Conduction Electrons in Silicon - Germanium Alloys. I. G. Gverdtsiteli, I. N. Aleksandrov, and V. V. Boiko . . . . .	(E)	1328	1690
Mechanism of Current Conduction in Thin-Film Metal-Dielectric-Metal Structures. A. E. Gershinskii and E. G. Kostsov . . . . .	(E)	1332	1695
Diffusion and Electrolytic Migration of Cadmium Ions in Mixed AgCl + CdCl <sub>2</sub> Crystals. B. G. Lur'e, A. N. Murin, and I. V. Murin . . . . .	(E)	1337	1702
Effect of Gamma and Neutron Irradiation on the Ferromagnetic Resonance in Ferrites. B. M. Lebed', L. Ya. Mukha, V. I. Mosel', and U. A. Ulmanis . . . . .	(E)	1342	1708
Theory of Fourth-Order Nonlinear Optical Effects in the Exciton Region of the Spectrum. B. S. Toshich . . . . .	(T)	1346	1713
Diffraction Contrast from $\gamma$ -Phase Precipitates Formed in the Late Stages of Decomposition of the Solid Solution Cu-2% Be. I. M. Sorokin . . . . .	(E)	1353	1723
Zener Relaxation Effect in Cu-Zn-Al Ternary Alloys. K. M. Shtrakhman . . . . .	(E)	1360	1732
Probability of Tunneling through an Impurity Level. V. I. Tikhonov . . . . .	(T)	1364	1737
A Lattice-Dynamical Investigation of the Hydrides CeH <sub>2</sub> , CeH <sub>3</sub> , ThH <sub>2</sub> , and UH <sub>2.7</sub> Using Inelastic Scattering of Cold Neutrons. I. Karimov, M. G. Zemlyanov, M. E. Kost, V. A. Somerkov, and N. A. Chernoplekov . . . . .	(E)	1366	1740
Inelastic Scattering of Medium-Energy Electrons in the Continuous-Energy-Loss Approximation. A. A. Ostroukhov . . . . .	(T/E)	1369	1744
Dislocation Structure of LiF Crystals Deformed under Constant Stresses. B. I. Smirnov and A. V. Borsenko . . . . .	(E/T)	1377	1755
Conditions for the Existence of Slow and Fast Recombination Waves in Semiconductors. O. V. Konstantinov, V. I. Perel', and G. V. Tsarenkov . . . . .	(T)	1381	1761
Effect of Localized States on the Damping of Elastic Waves in Crystals. M. A. Ivanov and M. A. Krivoglas . . . . .	(T)	1388	1771
The Spin-Phonon Interaction of Electrons and the Oscillations of the Longitudinal Magnetoresistance in Semiconductors. S. T. Pavlov and Yu. A. Firsov . . . . .	(T)	1394	1780
Splitting of the Energy Levels of the Er <sup>3+</sup> Ion in the Crystal Field of Strontium Molybdate. Yu. A. Bobrovnikov, G. M. Zverev and A. I. Smirnov . . . . .	(E)	1403	1794
<b>BRIEF COMMUNICATIONS</b>			
Variation of Ultrasonic Absorption in Fast and Programmed Loading. I. A. Gindin, I. M. Neklyudov, and V. B. Rabukhin . . . . .	(E/T)	1410	1802
Magnetic Properties of Crystals with Negative Differential Conductivity. I. I. Trusov . . . . .	(E)	1413	1805
Temperature Dependence of Ionic Charge Transport in Pure Silver. M. D. Smolin . . . . .	(E/T)	1415	1807
Photoemission from a NaCl Crystal Stimulated by an Electric Discharge. D. M. Mambetov and V. F. Resnyanskiy . . . . .	(E/T)	1417	1808
Effect of Hydrostatic Pressure on the Refractive Index of Epitaxial PbS Films. Ya. A. Semenov and A. Yu. Shileika . . . . .	(E)	1419	1810
Autoelectronic Emission from p-Silicon Cleaned with a Desorption Field. G. N. Fursel and V. G. Ivanov . . . . .	(E)	1421	1812
Effect of Microwave Pulse Length on the Excitation of Unstable Spin Waves. V. I. Churkin and N. N. Chelishchev . . . . .	(E)	1423	1814 (Contd.)

Available from Faraday Press, Inc.

RUSS.  
PAGE PAGE

Electron-Phonon Interaction Proportional to the Externally Applied Field. <u>Yu. V. Gulyaev</u> . . . . .	(T)	1425	1816
Luminescence of X-Ray Irradiated KCl-Cu Crystals Caused by Small Deformations. <u>S. Z. Shmurak and M. B. Eliashberg</u> . . . . .	(E)	1427	1818
The Mössbauer Effect in AgI <sup>119</sup> . <u>A. N. Murin, B. G. Lur'e, and Yu. S. Grushko</u> . .	(E)	1429	1820
Electrical Conductivity and Magnetic Susceptibility of Oxide Semiconductors Based on Vanadium Oxides. <u>A. Yu. Kudzin and I. M. Chernenko</u> . . . . .	(E)	1430	1822
Possibility of Observing an Acousto-emf in Nonconducting Piezoelectrics. <u>A. A. Chaban</u> . . . . .	(T)	1432	1824
A Method for Observing Annealing of Defects in Crystals. <u>I. N. Evdokimov, E. S. Mashkova, and V. A. Molchanov</u> . . . . .	(E)	1434	1825
Exoelectronic Emission during Phase Transitions in Ferroelectric Materials. <u>V. S. Kortov and R. I. Mints</u> . . . . .	(E)	1436	1828
Nonlinear Optical Properties of Triglycine Sulfate Single Crystals. <u>A. S. Sonin and V. S. Suvorov</u> . . . . .	(E)	1437	1829
Relation between Dislocations and Microplasmas during Avalanche Breakdown of a p-n Junction in Si. <u>I. V. Grekhov, N. N. Kryukova, and A. I. Novikov</u> . . .	(E)	1439	1831
X-Ray Satellites of Silicon. <u>V. A. Fomichev and T. M. Zimkina</u> . . . . .	(E)	1441	1833
Infrared Absorption Spectra of Gallium Arsenide Heavily Doped with Sulfur, Selenium, and Tellurium. <u>E. P. Rashevskaya and V. I. Fistul'</u> . . . . .	(E)	1443	1835
Voltage Dependence of the Electroluminescence Brightness. <u>A. M. Bonch-Bruevich and A. V. Burlakov</u> . . . . .	(E)	1446	1838
Investigation of Transport Effects in Electrophotoluminescence. <u>A. V. Burlakov</u> .	(E)	1449	1840
Thermal Conductivity of Additively Colored KCl Crystals. <u>D. N. Mirlin and I. A. Smirnov</u> . . . . .	(E)	1452	1843
Thermal Conductivity of NaF Single Crystals Containing K, Li, and Cl Impurities. <u>I. A. Smirnov</u> . . . . .	(E)	1454	1845
Paraelectric Induction and Echo. <u>R. V. Shubina</u> . . . . .	(T)	1456	1847
Vacancy Formation in Copper. <u>Ya. A. Kraftmakher</u> . . . . .	(E)	1458	1850
Electrical Conductivity of Iron near the Curie Point. <u>Ya. A. Kraftmakher and T. Yu. Romashina</u> . . . . .	(E)	1459	1851
Electron Paramagnetic Resonance of Phthalocyanines of Rare Earth Elements. <u>I. S. Kirin, Yu. L. Shelekhin, and P. N. Moskalev</u> . . . . .	(E)	1461	1852
Splitting of the Ground Level of Double Acceptors in Semiconductors. <u>N. S. Baryshev, B. I. Beglov, and K. Ya. Shtivel'man</u> . . . . .	(T)	1463	1854

Available from FARADAY Press, Inc.

# SOVIET PLANT PHYSIOLOGY

A translation of *Fiziologiya Rastenii*

Volume 14, Number 2

2

March-April, 1967

## CONTENTS

	Engl./Russ.
Photosynthesis Products and Biosynthesis of Phenol Compounds in Tea Plants —M. N. Zaprometov and V. Ya. Bakhlaeva . . . . .	167 197
Effect of Chloramphenicol on the Photosynthetic Apparatus of Plants—O. P. Osipova M. K. Nikolaeva, and Kh. Ya. Khein . . . . .	178 210
Action Spectrum of Photosynthesis, the Emerson and Induction Phenomena in Higher Plants—F. F. Litvin and Ho I-t'an . . . . .	186 219
Pigment Composition, Structure, and Photosynthetic Capacity of the Chloroplasts of Mutant Corn Leaves—A. Faludi-Daniel and D. Dubravitski . . . . .	195 232
Characteristics of the Formation and Functioning of the Photosynthetic Apparatus of Corn and Soya in Artificial (Two-Member) Cenoses—K. N. Zhalilbaev . . . . .	199 237
Excretion and Reduction of Nitrates by Maize Roots under Conditions of Root Anaerobiosis—G. M. Grineva and F. G. Karimova . . . . .	207 247
Rhythms in the Secretion of Organic Substances by Cereal Roots—A. P. Dubrov and E. V. Bulygina . . . . .	216 257
Effect of Heterauxin on the Formation of Organic Acids in Sunflower Leaves under Different Illumination Conditions—A. A. Zemlyanukhin and V. I. Zvyagintsev	222 264
Changes in the Mechanism of Cell Division Induced by Physiologically Active Substances from a Mistletoe ( <i>Viscum album</i> L.) Extract—G. N. Acatrinei . . . . .	226 271
Sorbic Acid as an Inhibitor of the <i>Fusarium vasinfectum</i> Fungus, which Induces Wilt in the Cotton Plant—N. P. Oshanina and K. E. Ovcharov . . . . .	234 276
Penetration of Lindane into Plants of Various Photoperiodic Groups and Its Biological Activity Depending upon the Light Conditions—G. A. Odumanova-Dunaeva . . . . .	239 282
Mechanism of the Action of Volatile Substances from Putrescent Plant Matter —N. I. Partenskaya, L. O. Elinor and A. M. Grodzinskii . . . . .	248 292
Effect of Blue, Red, and Green Light on the Content of Protein, Nucleic Acids, and Chlorophyll in Young Barley Plants—N. P. Voskresenskaya and E. P. Nechneva	254 299
Uptake of Labeled 6-Benzylaminopurine by Barley Leaf Segments and Distribution of the Compound among Various Cellular Structures—O. N. Kulieva, È. A. Popova, I. Benesh, and M. E. Dolgaya . . . . .	262 309
Effect and Aftereffect of High Isoosmotic Concentrations of NaCl and Dextran on Horse-Bean Plants—L. P. Lapina . . . . .	271 319
Effect of the Gaseous Composition of the Atmosphere on the Frost-Resistance of Winter Wheat Plants—Z. G. Rakitina . . . . .	278 328
Variation in Quality of Soybean Seed—I. F. Belikov and M. K. Sazonenko . . . . .	285 337
Statistical Essence of Biological Objects.I. Main Methods of Biometry —Yu. A. Urmantsev . . . . .	289 342
<b>BRIEF COMMUNICATIONS</b>	
Physiological Activity of Meta- and Para-Nitrophenylchloromethyl Carbinols and Their Nitrogen Esters—I. G. Khaskin and G. N. Tsybul'skaya . . . . .	304 359 (Cont'd.)

FIZIOLOGIYA RASTENII  
Vol 14, No. 2, Mar-Apr 67

(continued)

Engl./Russ.

Dependence of Grain Yield on Water Status during Development of Soft Wheat	• Wheat	306	360
-Z. F. Lyapshina . . . . .			
Dynamics of the Electrical Resistance and Cell Permeability of Winter Wheat			
In Connection with Breaking of Dormancy-G. M. Artamonova . . . . .		309	364
Content of Natural Gibberellins in Various Organs of Plants in Connection with Their			
Age-V. N. Lozhnikova . . . . .		312	366
Effect of Saccharose on the Resistance of Isolated Chloroplasts-Yu. G. Molotkovskii			
and I. M. Zhestkova . . . . .		314	367
<b>PRACTICAL APPLICATIONS</b>			
Pulsed Sprinkler with Self-Acting Differential Valve-G. L. Lebedev and V. G. Bryukvin		318	372
<b>METHODS</b>			
Use of Flash Spectroscopy for Investigating the Kinetics of Primary Stages			
of Photobiological Processes-L. B. Rubin and A. P. Andreytseva . . . . .		321	375
Determination of the Orientation of Plant Leaves in Space-L. M. Shiman . . . . .		326	381
<b>CHRONICLES</b>			
Symposium on the Application of Isotopes in Plant Nutrition Research-N. V. Obrucheva		329	384
First All-Union Symposium on Phenolic Compounds-M. N. Zaprometov . . . . .		332	386

The Russian press date (podpisano k pechati) of this issue was 3/13/1967.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# MEASUREMENT TECHNIQUE

A translation of Izmeritel'naya Tekhnika

Number 1

January, 1967

## CONTENTS

	Engl./Russ.
Meteorological Service of the USSR at a New Stage—I. I. Novikov . . . . .	1 3
<b>REVIEWS</b>	
Principal Physical Constants: Methods of Their Determination and Numerical Values —S. V. Gorbachevich and T. L. Zalutskaya . . . . .	5 6
<b>GENERAL PROBLEMS OF METROLOGY</b>	
Evaluation of Disparate Observations—A. K. Katal and G. Z. Fainschein . . . . .	20 17
<b>LINEAR MEASUREMENTS</b>	
Precision Calliper—N. P. Delyinov, F. M. Danilevich, and V. A. Nikitin . . . . .	24 19
<b>MASS MEASUREMENTS</b>	
Certain Problems in the Theory of Spring Weighing Devices—A. I. Popovich . . . . .	27 21
Evaluating Systematic Errors in Quadrant Scales—A. L. Shneiderman . . . . .	32 24
<b>Mechanical Measurements</b>	
Photoclectric Torque Meter with Light Guides—A. A. Stepanyan and V. M. Belousov . . . . .	35 26
Absolute Method for Dynamic Reproduction of Small Pressures—V. V. Kuz'min . . . . .	39 29
Film Germanium Strain Gauge—L. V. Novikov and R. S. Smirnova . . . . .	45 33
<b>THERMOPHYSICAL MEASUREMENTS</b>	
New Evaluation of the Thermodynamic Temperature of the Gold-Point Phase Equilibrium by the Method of Direct Immersion of the Gas Thermometer Bulb—K. S. Izrailev, I. I. Kitenkov, U. V. Dikov, N. V. Shemetillo, and N. V. Aref'eva . . . . .	43 35
Utilization of the Effect of Temperature on Nuclear Quadrupole Resonance for Absolute Temperature Measurements—A. D. Brodskii and I. V. Vorob'ev . . . . .	53 39
Low-Temperature Meter with Semiconductor Transducers—S. P. Logvinenko and Yu. G. Bevza . . . . .	56 42
<b>ELECTRICAL AND RADIO-ENGINEERING MEASUREMENTS</b>	
Normalization of the Basic Error in Digital Measuring Instruments—Z. I. Zelikovskii, V. R. Romanovskii, and È. F. Simikhovich . . . . .	59 44
Certain Errors in Uncompensated Capacitive Level Gauges—V. M. Kein . . . . .	63 47
Parallel Correcting Device in a Sluggish Transducer—R. K. Azimov, D. V. Belyaev, S. D. Dobrovolskii, and P. A. Korotkov . . . . .	69 50
Design Principles of Frequency Multipliers for Digital Frequency-Measuring Instruments —A. M. Margolin . . . . .	72 52
Relationship of a Cesium Reference-Standard Frequency to the Phase Difference between the Excitation Fields of Resonators—V. I. Ermakov, E. M. Zemskov, and V. I. Sachkov . . . . .	76 55

(Contd.)

Available from Consultants Bureau

IZMERITEL'NAYA TEKHNIKA  
No. 1, Jan 67

(continued)

	Engl./Russ.
<b>OPTICAL MEASUREMENTS</b>	
Color Atlas of the VNIIM—E. N. Yustova .....	60 57
<b>DISCUSSIONS</b>	
Normalization of the Basic Error of Instrument Amplifiers—N. N. Zavadskii, and L. M. Bogorad .....	84 60
<b>INFORMATION</b>	
Centennial Anniversary of the Scientific and Technical Society of the USSR—N. N. Grishina [1966 British Industrial Exhibition (Moscow, July, 1966)]—M. M. Gel'man and G. L. Grin ..	89 64 65
<b>ASSISTANCE TO MEASUREMENT LABORATORY WORKERS</b>	
Development of the Metric System of Units—I. I. Novikov .....	91 68
<b>BRIEF COMMUNICATIONS AND LETTERS TO THE EDITOR</b>	
Testing the Geometrical Dimensions of Bellows—A. N. Gavrilov and Yu. D. Lazutin .....	102 76
Device for Testing Indicators and Try Squares—S. I. Izotov .....	105 79
Testing the Rolling Components of Bearings with Convex Surfaces—N. V. Bruevich .....	106 80
Electrical-Contact Device for Testing Angular Dimensions—L. S. Abramovich .....	108 81
Photopyrometer for Contactless Measurement of the Temperature of Heated Bodies —V. G. Tishchenko, V. P. Sokolovskii, and V. K. Litovchenko .....	110 83
Evaluation of the Refractive Index of Thin Films—V. D. Korshunov .....	112 84
Conversion of Rapid Capacitance Variations into Voltage Changes—F. Nykl .....	114 86
Attachment to a Loop Galvanometer for Automatic Recording of Readings—I. F. Pyatkov ..	116 87
Highly Stable ac Relay for Controlling Large Powers—I. T. Rechkalov .....	117 88
Analog Elements with Magnetoresistive Transducers—G. I. Koxenko and V. I. Pogodin ..	119 89
Effect of Harmonics in Measuring Permittivity and Permeability—A. F. Kugaevskii and I. A. Glinitskii .....	122 90
Inertia of Damping Liquids in Oscillographic Galvanometers—S. N. Gural'nik .....	124 92
Measurement of the Characteristic Resistance of External Resonators in UHF Instruments —Yu. I. Bobrovskii .....	126 93
Megavoltmeter for Betatrons—V. I. Gorbunov and A. P. Grigor'ev .....	128 94
Evaluation of Errors in Reproducing Instruments—P. P. Tal'ko-Grintsevich .....	130 95

NOTE

The Table of Contents lists all material that appeared in the original Russian journal. Items originally published in English or generally available in the West are not included in the translation and are shown in brackets. Whenever possible, the English-language source containing the omitted items is given.

The Russian press date (podpisano k pechati) of this issue was 1/6/1967.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

Best Available Copy

Engl./Russ.

EXCHANGE OF EXPERIENCE

Experience in Running a Central Measuring Equipment Laboratory (TsLIT) at the Kursk Man-Made Fiber Combine—V. M. Staroverov and O. S. Gurov .....	201	51
State Inspection of Measuring Equipment at the Industrial Enterprises of the Novgorod Region—A. P. Kuznetsov .....	203	52

Measuring Equipment Repairs on an Industrial Basis—V. A. Taranyuk .....	205	54
Role of the Metrological Service at Industrial Enterprises—M. L. Fedorovskii .....	207	55

PROBLEMS OF ENGINEERING PSYCHOLOGY

Psychophysiological Parameters of Control Instruments and Their Location—N. V. Kuchevskaya ..	208	56
---	-----	----

ASSISTANCE TO MEASUREMENT LABORATORY WORKERS

Production Testing of Gears—B. A. Taits .....	211	58
---	-----	----

DISCUSSIONS

Comments on the Article of G. S. Ioffe on the "Rationalization of Equations in the Theory of Electricity and Magnetism"—L. D. Bilenkin .....	218	63
Structural Principle for Classifying Measuring Equipment—P. V. Novitskii .....	220	65
Problem of Classifying Laboratory Balances—V. G. Feoktistov .....	223	67

INFORMATION

Second Scientific and Technical Conference on "Methods and Instruments for Measuring Flows and Quantities of Liquids, Gases, and Vapors"—P. P. Kremlevskii .....	228	71
---	-----	----

ABSTRACTS (from the International Journal "Metrologia," No. 3, 1966)		
[Use of a Laser for Length Measurement by Fringe Counting—K. Gilliland and H. D. Cook .....		74]
[Precise Measurement of Length Using Capacitance Ratios—D. M. Makow .....		74]
[The Measurement of Brightness and Color—Günter Wyszecki .....		75]

BRIEF COMMUNICATIONS AND LETTERS TO THE EDITOR

Pneumatic Method for Testing Holes in End Faces—V. A. Sal'tsevich .....	233	75
Precision in Measuring Large External Diameters with Saddle-Shaped Instruments —A. D. Rubinov .....	234	76

Marking Device for a Universal Microscope—L. M. Shereshevskii .....	235	77
Errors in Measuring Distortions of a Television Raster Directly on a Picture-Tube Screen —A. Ya. Khesin .....	236	78

Sliding Calipers for Testing Tapering Holes and Trapezoidal Slots—R. V. Yakirin and A. I. Shvetsov .....	238	79
---	-----	----

Autocollimator with a Prismatic System of Vernier Sighting—Yu. P. Kontievskii and G. S. Khrul'kov .....	239	80
--	-----	----

Calibration of Thermocouples at Temperatures above 2000°C—G. B. Lapp, D. I. Popova, and L. M. Vasil'ev .....	241	82
---	-----	----

Thermometers with Semiconductor Detectors—Yu. V. Karbe, Yu. A. Kayukov, V. M. Chicherin, and N. F. Yagovitin .....	243	83
---	-----	----

Measurements of Temperature by Means of a Capacitive Transducer of the Thermal Expansion of Metals—A. P. Nasekovskii .....	245	84
---	-----	----

Utilization of Copper Conductors instead of Compensation Conductors in Measuring Temperature with Automatic Potentiometers—Yu. S. Borunkov and N. I. Kashlin .....	247	86
Raising the Reliability of Microammeter M-246—I. M. Semenikhin .....	249	87

(Contd.)

Available from Consultants Bureau

	Engl./Russ.
Simple Method for Evaluating Small Capacitance Variations—V. A. Zabrodin .....	250 87
Cathode-Ray Curve Tracer—V. D. Perevertaev and A. K. Lyubavin .....	252 89
Wide-Band Synchronous Detector—B. I. Tsipko .....	254 90
Testing Mass Produced Articles with a Known Distribution of the Tested Parameter —V. I. Sobolev .....	256 91
Effectiveness of Standby Arrangements Entailing the Sampling of Aggregates —G. A. Shevtsov, E. M. Sheremet, and L. A. Dubitskii .....	258 93
Application of Information Methods for Evaluating the Precision of Measurements —Yu. M. Neiman .....	261 94
Assitance and Attention to Rationalizers .....	263 96

NOTE

The Table of Contents lists all material that appeared in the original Russian journal. Items originally published in English or generally available in the West are not included in the translation and are shown in brackets. Whenever possible, the English-language source containing the omitted items is given.

The Russian press date (podpisano k pechati) of this issue was 2/9/1967. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# MEASUREMENT TECHNIQUES

A translation of Izmeritel'naya Tekhnika

Number 3

March, 1967

## CONTENTS

	Engl./Russ.
<b>REVIEW</b>	
Present-Day Condition of and Ways of Developing Methods and Equipment for Investigating Ferromagnetic Materials — N. G. Chernysheva and E. G. Shramkov . . . . .	265 3
<b>GENERAL PROBLEMS OF METROLOGY</b>	
Selection of Discrete Intervals for Discrete-Differential Measuring Devices in the Presence of Random Noise — V. A. Levidov and M. V. Anolik . . . . .	284 19
<b>FORCE AND STRESS MEASUREMENTS</b>	
Closed Differential Circuits for Measuring Effective Friction Moments in Gear Mechanisms — A. I. Solov'ev . . . . .	289 22
Computation of Pressure Produced in Ultrahigh-Pressure Equipment by an Elastoplastic Medium — D. S. Mitinskii . . . . .	292 24
<b>MEASUREMENTS OF ELECTRIC AND MAGNETIC PARAMETERS</b>	
Schematic for Measuring Phase Differences at Infrasonic Frequencies — V. D. Stashuk . . . . .	296 25
Raising the Precision of Phase Measurements of Ultrahigh Frequencies with a Mismatched Phase Shifter — A. A. Borodulin . . . . .	299 30
Electronic Infrasonic-Frequency Harmonic Analyzer — A. A. Vavilov and A. I. Soiodovnikov . . . . .	303 33
Pulsed Method for Measuring and Selecting Tunnel Diodes — S. A. Kravchenko . . . . .	308 37
Measurement of the Spectral Density of Pulses by Means of Harmonics — L. A. Pereverzev . . . . .	311 39
<b>PHYSICOCHEMICAL MEASUREMENTS</b>	
Matching the Characteristics of the Electrode System and the Secondary Instrument in a pH-Meter — A. S. Benevol'skii and V. P. Yudinovskii . . . . .	314 41
Evaluation of the Dissociation Energy of $\text{Na}_2$ and $\text{K}_2$ Molecules from the Saturated Vapor Pressure of Sodium and Potassium — Yu. K. Vinogradov and L. D. Volyak . . . . .	318 43
<b>RADIATION MEASUREMENTS</b>	
Applicability Limit of Ionization Methods for Fast-Neutron Dosimetry — B. M. Isaev, I. V. Gordeev, Yu. I. Bregadze, and M. V. Antipenko . . . . .	322 46
<b>PROBLEMS OF ENGINEERING PSYCHOLOGY</b>	
Psycho-Engineering Investigations in Metrological Service — F. S. Pinskii and S. B. Orlov . . . . .	331 52
<b>ASSISTANCE TO MEASUREMENT LABORATORY WORKERS</b>	
State System of Reference Measures — P. N. Agaletskii . . . . .	335 55
<b>ABSTRACTS AND CRITICAL REVIEWS</b>	
[Self-Checking Potentiometers and Voltage Dividers (Instruments and Control Systems, pp. 121-125, May, 1966) — J. Sutcliffe and M. I. Steinberg . . . . .	60]
S. I. Epstein. Measurements of Capacitor Characteristics—Reviewed by A. F. Kugavskii and A. L. Vasilev . . . . .	341 63
<b>INTERNATIONAL COLLABORATION</b>	
French Metrologists and Standardizers in the USSR — G. V. Shul'gina . . . . .	342 64 (Contd)

Available from Consultants Bureau

	Engl./Russ.
<b>EXCHANGE OF EXPERIENCE</b>	
Technique and Practical Organization of Control and Heavy Inspection Work in Enterprises - P. M. Larionov . . . . .	345 66
Testing the Measuring Equipment of Rural Trading Organizations in the Andizhan Region - B. Ya. Gitnikov. . . . .	349 68
<b>INFORMATION</b>	
G. D. Burdun (60th Birthday). . . . .	350 69
At the Committee of Standards, Measures, and Measuring Instruments Attached to the Council of Ministers of the USSR . . . . .	351 70
All-Union Conference on Automatic Testing and Electrical Measuring Methods - V. P. Shul'ts . . .	353 71
All-Union Conference on Automatic Measurements of Complex ac Quantities - I. L. Shain . . . .	356 73
Japanese Exhibition of Electronic Equipment and Instrument Making - V. A. Zelentsov and L. M. Magid . . . . .	358 74
Electronic Measuring Equipment of the German Democratic Republic Exhibited in Moscow - M. M. Gel'man . . . . .	361 76
<b>DISCUSSIONS</b>	
Certain Particular Features in Applying SI Units in the Engineering Industry - A. M. Pokrovskii . . .	367 81
The Problem of Applying the International System of Units in Industry - L. R. Stotskii . . . . .	371 84
<b>BRIEF COMMUNICATIONS AND LETTERS TO THE EDITOR</b>	
Contactless Magnetic Transducer of Linear and Angular Displacements - M. I. Selyi, N. P. Makarov, and A. M. Medvedenko . . . . .	377 89
Automatic Measurement of the Composition and Quality of Substances and Its Metrological Preparation - I. S. Liderman. . . . .	380 91
Quality of Certain Instruction Manuals - P. M. Ivanov and G. G. Vcl'k . . . . .	382 93
Digital Metering Device with Light-Guide Optics - A. A. Stepanyan and V. M. Belousov. . . . .	385 94
Method for Maintaining a Constant Vapor Pressure in Testing the Characteristics of Gas-Discharge Lamps - G. S. Sarychev and G. N. Gavrilkina . . . . .	387 96

NOTE

The Table of Contents lists all material that appeared in the original Russian journal. Items originally published in English or generally available in the West are not included in the translation and are shown in brackets. Whenever possible, the English-language source containing the omitted items is given.

The Russian press date (podpisano k pechati) of this issue was 3/20/1967. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Available from Consultants Bureau

# MEASUREMENT TECHNIQUES

A translation of *Izmeritel'naya Tekhnika*

Number 2

February, 1967

## CONTENTS

Engl./Russ.

Automation, Electronics and Computer Techniques in Metrology—A. Ya. Bezikovich, Yu. N. Shestopalov, and S. P. Eskin . . . . .	135	3
REVIEWS		
Method for Measuring Induction of Strong Constant Magnetic Fields—G. K. Yagola and Yu. G. Aghalyan . . . . .	139	6
LINEAR AND ANGULAR MEASUREMENTS		
Electronic Level with a Liquid Ampoule—B. A. Utochkin and V. V. Komarov . . . . .	147	13
MASS MEASUREMENTS		
Remote-Controlled Multicomponent Weighing Batcher—A. I. Angel . . . . .	150	15
FORCE MEASUREMENTS		
Designing Elastic Components (Springs) for Dynamometers of the Closed-Bracket Type with the Aid of Sectionalization—N. G. Tokar' . . . . .	155	18
FLOW-RATE AND STORAGE-CAPACITY MEASUREMENTS		
New Gas Metering Vessel—D. N. Ulezko . . . . .	159	21
THERMOPHYSICAL MEASUREMENTS		
Thermocouple in a Dynamic Operating Condition—I. P. Pelepeichenko and D. F. Simbirskii . . . . .	163	24
MEASUREMENTS OF ELECTRIC AND MAGNETIC PARAMETERS		
Square-Law "Code-Current" Converter—V. B. Smolov . . . . .	169	28
Sliding Noise-stand Generator—A. N. Mutaf . . . . .	173	30
Capacitive High-Precision Frequency Meter—I. N. Byzov and B. A. Kaznacheev . . . . .	176	33
Voltage Synthesizer for Testing Nonlinear Distortion Meters and Harmonic Analyzers—Yu. N. Bazas . . . . .	180	36
Computation of Errors in a Semiconductor Vectormeter—Yu. A. Vdovin, I. M. Merkovich, I. A. Polovnikova, and E. I. Popov . . . . .	183	38
Automatic Zero-Drift Compensation of Electrometers with Vibrating Capacitors —A. V. Prokurov and V. G. Shirokopytov . . . . .	187	41
Device for Counting Pulses and Evaluating Time Intervals—G. V. Tsepkov . . . . .	190	43
Evaluating the Energy of Electron Beams in Linear Accelerators by Means of Analog Computer Elements—E. V. Armienskii, E. G. Pyatnov, and V. D. Chalyi . . . . .	193	46
THE METROLOGICAL SERVICE		
Nature of Metrological Services Development in Industry—E. L. Perel'shtein . . . . .	198	49

(Contd.)

Available from Consultants Bureau

IZ AK NAUK SSSR, ATMOSFERA I OKEANOLOGICHESKII  
Vol 3, No. 5, May 1967

	Page	
	English	Russian
YU. G. LUSHEV AND L. T. MATVEEV, Peculiarities of the Formation and Structure of Radiation Fogs (A Numerical Experiment) . . . . .	261	459-472
K. D. SABININ, Selection of the Relation between Periodicity of Measurement and Instrument Inertia in Sampling . . . . .	268	973-980
N. L. BYZOVA AND V. N. IVANOV, Estimation of the Parameters of Transverse Diffusion in the Lower Layer of the Atmosphere Based on Turbulence Characteristics . . . . .	273	481-495
O. I. SMOKTII, Multiple Scattering of Light in an Inhomogeneous Spherically Symmetrical Planetary Atmosphere . . . . .	281	496-506
N. B. DIVARI, Calculation of the Polarization of the Light of the Twilight Sky . . . . .	287	507-515
P. V. SVISTOV, Certain Results of a Study of the Physicochemical Nature of Atmospheric Aerosols . . . . .	292	516-525
B. A. KAGAN (COHEN), A Three-Dimensional Model of the Tidal Flow in an Ice-Covered Sea . . . . .	297	526-536
A. P. IVANOV AND A. YA. KHAIRULLINA, Critical Discrimination Depths of a Collimated Source in a Scattering Medium . . . . .	303	537-543
REVIEWS		
E. V. BRUNS, Modern Oceanographic Equipment - Main Problems and Trends . . . . .	307	544-556
SHORT COMMUNICATIONS		
A. V. FEDYNSKII, S. P. PEROV, A. F. CHIZHOV, An Attempt to Measure Directly the Concentration of Water Vapor and Atomic Oxygen in the Mesosphere . . . . .	315	557-561
V. M. BEREZIN AND V. S. MIRER, Effect of Ozone on the Mean Meridional Circulation in the Upper Atmosphere . . . . .	318	562-565
A. G. LAKTIONOV, Variation of the Size and Concentration of Drops during the Scattering of Fog . . . . .	321	566-569
T. G. GABARASHVILI AND N. V. GLIKI, Origination of the Ice Phase in Super-cooled Water under the Influence of Electrically Charged Crystals of Cholesterol and Naphthalene . . . . .	324	570-574
REVIEWS AND BIBLIOGRAPHY		
YU. M. KRYLOV, Review of B. Kh. Glukhovskii's Book "Investigation of the Sea Wind Swell," Gidrometeoizdat, 1966 . . . . .	328	575-576

Available from The American Geophysical Union

CONTENTS

	Page	
	English	Russian
I. V. MUKHAN AND A. I. MOLOTKOV, The Propagation of Rayleigh Waves in an Elastic Half Space which is Inhomogeneous in two Coordinates .....	209	3-8
I. O. OSIPOV, Dispersion Curves of Phase Velocities of Natural Vibration of an Anisotropic Layer .....	212	9-13
E. I. LYUKE (LÜCKE), Relation between the Energy of a Surface Wave and the Parameters of an Explosion in Air (Comparison of Theoretical and Experimental Results) .....	215	14-25
M. B. RAPOPORT, L. A. RYABINKIN AND M. I. CHERVONSKII, Recordings of Variable Density and Synchronous Stacking of Signals on an Emulsion Layer .....	222	25-35
V. N. STRAKHOV, The Solution of Incorrectly Posed Magnetometric and Gravimetric Problems Expressible by Convolution-Type Integral Equations. I .....	228	36-54
M. I. LAPINA, A Numerical Method for the Analytic Continuation of Two-Dimensional Potential Fields. II .....	236	55-67

SCIENTIFIC COMMUNICATIONS

I. NOTSONEN, Phase Velocities of Surface Waves in Finland .....	242	68-71
P. YA. BERSHTEIN, The Propagation of Love Waves in an Inhomogeneous Anisotropic Medium .....	245	72-74
V. M. MERHULOVA AND E. A. VASIL'TSOI, Measuring Absorption in Rocks by the Bending Vibration Method ..	247	75-77
A. V. KALININ, SH. A. AZIMI, AND V. V. KALININ, Estimate of the Phase-Velocity Dispersion in Absorbing Media .....	249	78-83
Z. R. NISHEN'KINA, Interpretation of Refracted Wave Travel-Time Curves when There Are Vertical and Horizontal Velocity Gradients .....	252	84-91
O. A. SOLOV'EV, Analytic Continuation of Potential Fields by Iteration .....	257	92-93
V. D. PLATON AND YU. N. KOZULIN, The Magnetic Field of a Vertical Magnetic Dipole above a Two-Layer Medium .....	259	94-100
YU. B. SHUB (SCHAUB), On the Depth of Aerial Electric Prospecting by the Pulse-Bunching Method .....	262	101-105
B. S. ENENSHTEIN, A Technique for Interpreting Three-Layer Curves of Electromagnetic Prospecting .....	265	106-111

Available from The American Geophysical Union

English Edition Published October 1967

## CONTENTS

	Page	
	English	Russian
E. N. LYUSTIKH, Energetics of Dipslip Faults in the Upper Mantle .....	269	3-13
M. P. VOLAROVICH, A. K. KURSKEEV, I. S. TOMASHEVSKAYA, I. L. TUZOVA AND B. M. URAZAEV, The Correlation between the Longitudinal Wave Propagation Velocity and Rock Density at High Confining Pressures .....	276	14-20
A. A. GVOZDEV AND V. V. KUZNETSOV, Spalling Observed in the Ground during Seismic Prospecting .....	280	21-27
S. N. BARSENKOV, Calculation of Third-Order Tides from Gravimetric Observations .....	284	28-32
V. N. STRAKHOV, The Solution of Incorrectly Posed Problems in Magnetometry and Gravimetry Expressible in the Form of Convolution Integral Equations ..	287	33-53
V. M. NOVOSELITSKII, Possible Errors in the Determination of the Variable Density of a Horizontal Layer by Means of Gravitational Anomalies .....	299	54-61
V. I. DMITRIEV AND E. V. ZAKHAROV, Diffraction of a Plane Electromagnetic Field by an Ideally Conducting Strip in a Layered Medium .....	304	62-70
E. A. LYUBIMOVA AND A. K. POPOVA, Measurement of the Thermal Conduc- tivity of Lake Baikal Sediments by a Ball Probe Method .....	309	71-74

## SCIENTIFIC COMMUNICATIONS

V. N. ZHARKOV, V. M. LYUBIMOV, A. A. MOVCHAN, AND A. I. MOVCHAN, Harmonics of Torsional Vibrations of the Earth .....	312	75-85
P. A. STROEV AND A. I. FROLOV, On the Sublatitudinal Fracture in the Earth's Crust at the Edge Zone of the Eastern Antarctic (10° West Longitude to 130° East Longitude) .....	319	86-91
N. P. VLADIMIROV AND S. M. KRYLOV, The Polarization of "Pearl" Type Oscillations .....	323	92-95

## CHRONICLE

A. A. GEODEKYAN AND YA. T. TER-OGANESOV, Opening Session of the Division of Earth Sciences of the Academy of Sciences of the USSR on the Caucasus .....	326	96-101
V. I. BUNE, All-Union Symposium on the Seismic Regime .....	329	98-101
L. P. VINNIK, Letter to the Editorial Board .....	332	102

Available from The American Geophysical Union

English Edition Published November 1967

RESUME OF THE CONFERENCE TRANSACTIONS PUBLISHED IN VOLUME 30

of the

BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR

- Physical Series -

Issue No.

Thin Ferromagnetic Films (Second Symposium; conc. from Vol. 29, No. 4)	1
Nuclear Spectroscopy & Nuclear Structure (Fifteenth Conference; cont. from Vol. 29)	1,2 & 3
Nuclear Spectroscopy & Nuclear Structure (Sixteenth Conference; to be cont. in Vol. 31)	3,7,8 & 12
Luminescence (Fourteenth Conference; Crystal Phosphors)	4 & 9
Electron Microscopy (Fifth Conference)	5
Cathode Electronics (Twelfth Conference)	5 & 12
Ferromagnetism & Antiferromagnetism (Sverdlovsk, July 1965)	6
Cosmic Ray Physics (Moscow, November 1965)	10 & 11

Translated in 1967 by

Columbia Technical Translations  
Five Vermont Avenue  
White Plains, New York 10606

Available from Columbia Technical Translations

BULLETIN OF THE ACADEMY OF SCIENCES OF THE USSR  
DIVISION OF CHEMICAL SCIENCE

A translation of *Izvestiya Akademii Nauk SSSR Seriya Khimicheskaya*

Number 12

December, 1966

CONTENTS

Engl./Russ.

INORGANIC AND ANALYTICAL CHEMISTRY

Zirconates of the Rare Earth Elements and Their Physicochemical Properties  
Communication 3. Some Principles of the Formation, Physicochemical  
and Technical Properties of Zirconates—A. K. Kuznetsov and É. K. Keler . . . . . 2011 2073

PHYSICAL CHEMISTRY

Dipole Moments of Certain Adducts of Hexachlorocyclopentadiene  
and Their Derivatives—B. A. Arbuzov, A. N. Vereshchagin,  
and É. S. Atyeva . . . . . 2017 2080

Tautomerism and Geometrical Isomerism of Nitrogen-Containing Derivatives  
of Carbonyl Compounds. Communication 14. Dipole Moments and Structure  
of Phenylhydrazones of Certain Aldehydes and Ketones—Yu. P. Kitaev,  
S. A. Flegontov, and T. V. Troepol'skaya . . . . . 2023 2086

Vibrational Spectra of Organoarsenic Compounds. Communication 3. Infrared  
Absorption Spectra and Raman Spectra of a Number of Cyclic Esters of Acids  
of Trivalent Arsenic—R. R. Shagidullin and T. E. Pavlova . . . . . 2027 2091

Mechanism of the Telomerization of Ethylene by Carbon Tetrachloride  
and Chloroform—B. A. Énglin and R. Kh. Freidlina . . . . . 2032 2097

Measurement of the Transport Numbers of Ions Relative to the Solution in Solutions  
of HCl, LiCl, NaCl, and KCl—B. P. Konstantinov and V. P. Troshin . . . . . 2039 2104

ORGANIC AND BIOLOGICAL CHEMISTRY

Aliphatic Fluoro Nitro Compounds. Communication 6. Some Reactions  
of Polyfluoronitroalkanes—I. L. Knunyants, L. S. German, and I. N. Rozhkov . . . . . 2045 2111

Bistrifluoromethylketene and Perfluoromethacrylic Acid. Communication 5.  
3,3,3-Trifluoro-2-(Trifluoromethyl)Propionyl Fluoride in Reactions  
with Acid Chlorides of Sulfur Acids—Yu. A. Cheburkov, N. Mukhamadaliev,  
and I. L. Knunyants . . . . . 2049 2115

3,3,3-Trifluoro-2-(Trifluoromethyl)Propionyl Fluoride in Reactions with Oxides  
of Nitrogen—Yu. A. Cheburkov, N. Mukhamadaliev, and I. L. Knunyants . . . . . 2053 2119

Telomerization of Octamethylcyclotetrasiloxane with Dichloromethyl(3,3,3-  
Trifluoropropyl)Silane and with Chlorotris(3,3,3-Trifluoropropyl)Silane  
—V. A. Ponomarenko and N. M. Khomutova . . . . . 2056 2123

Hydrolytic Cocondensation of Trichloro(3,3,3-Trifluoropropyl)Silane  
with Dichlorodimethyl-, Dichloromethylphenyl-, and Dichloromethyl(3,3,3-  
Trifluoropropyl)-Silanes—V. A. Ponomarenko, N. M. Khomutova,  
and I. F. Manucharova . . . . . 2061 2128

Reactions of Chloral with some Organophosphorus Compounds  
—L. A. Antokhina and P. I. Alimov . . . . . 2067 2135

(Contd.)

Available from Consultants Bureau

Engl./Russ.

Alkylthionophosphine Sulfides. Communication 4. Method for the Preparation of Ammonium P-Alkylphosphonamidodithioates and their N-Derivatives -O. N. Grishina and I. A. Sokolova . . . . .	2071	2139
Depsipeptides. Communication 15. Structure and Synthesis of Valinomycin -M. M. Shemyakin, N. A. Aldanova, E. I. Vinogradova, and M. Yu. Feigina . . . . .	2074	2143
Preparation of N-[Purin-6-Ylthio]Acetyl] Peptides-E. D. Kaverzneva, V. K. Zvorykina, V. V. Kiseleva, and T. A. Gorokhova . . . . .	2079	2148
Synthesis of Poly-L-Ornithine-V. G. Debabov, V. D. Davydov, and A. A. Morozkin .	2084	2153
Corticosteroid Analogs. Communication 14. Behavior of the Secondary Acetoxy Group in the Acetylcylohexanediol Series-A. A. Akhrem and A. M. Moiseenkov . . . . .	2088	2156
Corticosteroid Analogs. Communication 15. Reactions of 1-Acetyl-1-Bromo-2-Cyclohexanol and its Acetate with Carbazic Ester-A. A. Akhrem and A. M. Moiseenkov . . . . .	2092	2161
$\beta$ -Dicarbonyl Compounds. Communication 25. Synthesis of some Simple Analogs of the Antibiotic Griseofulvin-V. I. Gunar, L. F. Ovechkina, S. I. Zav'yalov, G. N. Pershin, and S. N. Milovanova . . . . .	2097	2167
Synthesis of some N-Substituted 2- and 3-Methyl-4-Piperidones -E. A. Mistryukov and N. I. Aronova . . . . .	2101	2171
Catalytic Hydrogenation of Acetylenic $\gamma$ -Glycols and their Derivatives. Communication 1. Hydrogenation of 2-Cyanoethyl Ethers -P. S. Bataev, L. A. Konstantinova, A. A. Balandin, B. D. Polkovnikov, and A. M. Taber . . . . .	2105	2176
Structural and Steric Orientation in Nucleophilic Additions of Thiols to Butenyne-V. N. Petrov, G. M. Andrianova, and E. N. Prilezhaeva . . . . .	2109	2180
Reactions of Methanol and Ethanol with Tetrachloroethylene-G. I. Nikishin, M. I. Dyusenov, and G. V. Somov . . . . .	2115	2188
Alkylation of Phenols with Bifunctional Compounds. Communication 15. Alkylation of m- and p-Cresols with Allyl Alcohol in a Flow System, and Catalytic Isomerization of Allyl Tolyli Ethers-E. A. Viktorova, N. I. Shul'ina, N. N. Tsitsugina, and E. A. Karakhanov . . . . .	2120	2193
Reactions of 1,1-Disubstituted Hydrazines with Derivatives of $\alpha,\beta$ -Unsaturated Acids. Communication 3. 2-Benzyl-2-Phenylhydrazides of Unsaturated Acids -N. P. Zapevalova and T. A. Sokolova . . . . .	2124	2197
Reactions of 1,1-Disubstituted Hydrazines with Derivatives of $\alpha,\beta$ -Unsaturated Acids. Communication 4. Reactions of 1,1-Dimethylhydrazine with $\alpha,\beta$ -Unsaturated Esters-N. P. Zapevalova, L. A. Oveyannikova, and T. A. Sokolova . . . . .	2127	2200
<b>BRIEF COMMUNICATIONS</b>		
Synthesis and Properties of Some Ethylnylchlorosilanes-E. A. Chernyshev and G. F. Pavelko . . . . .	2131	2205
Synthesis of 2,3,4,6-Tetra-O-Acetyl- $\beta$ -D-Glycopyranosyldibutyl Phosphite -A. Ya. Khorlin, V. I. Sayatkova, V. P. Evdakov, and E. K. Shlenkova . . . . .	2134	2207
Diferrocenyl and 1,2-Diferrocenylethyrene-A. N. Nesmeyanov, E. G. Perevalova, and T. T. Tsiskaridze . . . . .	2136	2209
3,3-Dimethylcyclopentene-2-One-1-V. A. Mironov, T. M. Fadeeva, G. M. Kuz'yants, and A. A. Akhrem . . . . .	2139	2211
Kinetics of the Structural Isomerization of the Adduct of the Reaction of 5-Methyl-Cyclopentadiene with Maleic Anhydride-V. A. Mironov, T. M. Fadeeva, A. U. Stepanyants, and A. A. Akhrem . . . . .	2142	2213

(contd.)

Available from Consultants Bureau

Engl./Russ.

Comparative Study of the Photochemical Chlorination of Ethyltrichlorogerme	2145	2215
and Ethyltrichlorosilane—M. A. Kadina, G. Ya. Zueva, and A. G. Kechina		
Chemistry of the Interaction of a Peroxy Radical with Manganese Stearate		
—V. M. Gol'dberg and L. K. Obukhova . . . . .	2147	2217
Synthesis of Derivatives of N-Phosphoryliminothiocarbamic Acid		
and N-Phosphorylimidourea—L. N. Levkova and P. I. Alimov . . . . .	2149	2218
Copper-Stearate-Catalyzed Oxidation of $\alpha$ -Naphthylamine with Oxygen		
—L. N. Denisova and E. T. Denisov . . . . .	2152	2220
Synthesis and Isomerization of Alkylthiosulfolenes—E. N. Prilezhaeva,		
V. N. Petrov, V. A. Sil'ke, and A. V. Kessenikh . . . . .	2155	2223
Reaction of 2-Methyl-2-(Hydroxymethyl)-1,3-Dioxolan with Mercaptans		
—A. S. Atavin, N. P. Vasil'ev, L. P. Dmitrieva, and A. I. Mikhaleva . . . . .	2158	2225
Reaction of Diphenyldichlorosilane with 1,4-Dilithio-1,4-Dihydronaphthalene		
—K. A. Andrianov, A. I. Nogaiedeli, and R. Sh. Tkeshelashvili . . . . .	2160	2228
Reaction of Dialkyl-(Diethylamino)-Silanes with Glycols		
—K. A. Andrianov, T. K. Dzhashiashvili, V. V. Astakhin, and G. N. Shumakova . . . . .	2162	2229
Photochemical Reactions of Cyclopentadienyltetracarbonylniobium		
—A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and A. A. Pasynskii .	2164	2231
Configuration of the Isomeric 2-Oxo-4-Methoxy Derivatives of the Methyl		
Ester of Gibberellin A <sub>1</sub> —I. A. Gurvich, S. S. Yusif, I. M. Mil'shtein, and V. F. Kucherov . . . . .	2167	2233
Determination of the Density and Refractive Index of Cesium Ozonide		
—V. I. Sokol, V. V. Matvee, and I. I. Vol'nov . . . . .	2169	2235
Preparation of Methylenecyclobutane—A. I. D'yachenko and M. Yu. Lukina . . .	2172	2237
Aminomethylation of Ethylferrocene—L. S. Shilovtseva, E. G. Perevalova, V. A. Nefedov, and A. N. Nesmeyanov . . . . .	2175	2239
Synthesis of cis-9-Pentadecenoic and cis-9-Heptadecenoic Acids and a Study of their Antiinflammatory Action—V. A. Vaver, V. V. Dorogov, and L. D. Bergelson . . . . .	2178	2241
Acylation of 2,6-Di-tert-Butylphenol—N. V. Portnykh, A. A. Volod'kin, and V. V. Ershov . . . . .	2181	2243
LETTERS TO THE EDITOR		
Observance of Luminescence in the Adsorption of Vapors and Gases on NiO		
—A. A. Kadushin and Yu. N. Rufov . . . . .	2183	2245
Perfluorinated N-Fluoroimines—B. L. Dyatkin, R. A. Bekker, and I. L. Knunyants . . . . .	2184	2245
Synthesis of $\tau$ -Cyclopentadienyldicarbonylirontrichlorogerme		
and $\pi$ -Cyclopentadienyldicarbonyliron dichlorogerme—A. N. Nesmeyanov, K. N. Anisimov, N. E. Kolobova, and F. S. Denisov . . . . .	2185	2246
New Method for the Synthesis of Aziridines—V. A. Tariakovskii, O. A. Luk'yanov, and S. S. Novikov . . . . .	2186	2246
Identification of the Free Radicals, Generated by Potassium Ozonide when Reacted with Water, by the Electron Paramagnetic Resonance		
Method—I. A. Kazarnovskii, N. P. Lipikhin, and N. N. Bubnov . . . . .	2187	2247
Fluorine-Containing Phosphazo Compounds—E. P. Mochalina, B. L. Dyatkin, and I. L. Knunyants . . . . .	2188	2247

(Contd.)

Available from Consultants Bureau

IZVESTIYA AKADEMII NAUK SSR SERIYA KHMICHESKAYA  
No. 12, December 66

(continued)

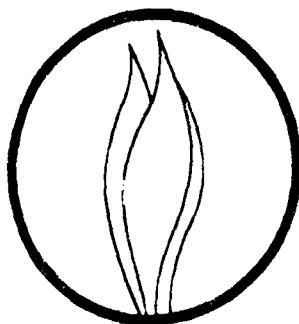
Engl./Russ.

INDEX

Author Index . . . . .	2191
Table of Contents . . . . .	2199

The Russian press date (podpisano k pechati) of this issue was 12/14/1966.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau



# Soviet Radiophysics

The Faraday Press cover-to-cover  
translation of *Izvestiya VUZ. Radiofizika*

## Contents

Volume 9, Number 2 • March - April 1966

**Editorial Board**  
*Izvestiya VUZ. Radiofizika*  
a publication of the  
Higher Educational Institutes USSR  
V. L. Ginzburg,  
Editor-in-Chief  
V. I. Gaponov,  
Associate Editor  
K. B. Murashkina,  
Corresponding Secretary  
A. S. Alekseev  
G. V. Aronovich  
I. L. Berestheim  
S. Ya. Breude  
A. V. Gaponov  
S. D. Gvozdovskiy  
B. N. Gershman  
G. G. Gel'manshev  
N. G. Denisov  
V. V. Zheleznyakov  
V. A. Zverev  
E. A. Leontovich  
M. A. Miller  
L. L. Myasnikov  
Yu. I. Neimark  
S. P. Strelkov  
V. S. Troitskii  
V. M. Fain  
V. N. Shevchik  
  
**Faraday Advisory Editors**  
R. C. Glass  
University of London  
B. R. Pamplin  
Bath University of Technology  
D. ter Haar  
Oxford University

	Russian page	English page
The Part Played by Coherent Plasma Radioemission in Quasars and the Remnants of Supernova Stars. V. L. Ginzburg and L. M. Ozernoi . . . . .	221	153
Frequency Shift of Radiation Scattered from a Rough Sea Surface. A. D. Rosenberg, I. E. Ostrovskii, and A. I. Kalmykov . . . . .	234	161
Nonlinear Oscillations of a Magnetoactive Plasma. N. P. Giorgadze . . . . .	241	165
Nonlinear Theory of Electromagnetic Waves in a Bounded Plasma. A. N. Kondratenko, V. I. Liokumovich, and P. N. Rybin . . . . .	261	176
Kinetic Theory of Electromagnetic Wave Propagation through a Plasma Layer in a Magnetic Field. A. N. Kondratenko and V. I. Miroshnichenko . . . . .	272	182
A Waveguide Discrimination Method. S. D. Il'in, S. S. Petrusev, and A. V. Chernetskii . . . . .	279	186
Multiplexer for Multifrequency Microwave Sounding of a Plasma. S. D. Il'in, S. S. Petrusev, and A. V. Chernetskii . . . . .	287	190
Ray Statistics in a Plane Layer Medium with Random In- homogeneity. V. M. Komissarov . . . . .	292	193
Investigation of a Molecular Oscillator with a "Molecular- Ringing" Amplifier. A. F. Mukhamedgalieva, A. N. Oraevskii, and G. M. Strakhovskii . . . . .	302	199
Nonuniform Magnetization Models in the Theory of Spin- Wave Resonance in a Thin Ferromagnetic Film. V. M. Sokolov and B. A. Tavger. . . . .	308	202

(Continued)

Single Issue \$35  
Annual Subscription \$125

© 1967 by The Faraday Press, Inc.  
All rights reserved. This publication or parts thereof may not  
be reproduced in any form without permission of the publisher.

## The Faraday Press, Inc.

84 FIFTH AVENUE, NEW YORK, N. Y. 10011

Available from The Faraday Press, Inc.

- 118 -

**CONTENTS (CONT'D)**

	Russian page	English page
<b>Statistical Stability of the Motion of an Oscillatory System with One Degree of Freedom. I. A. N. Malakhov and G. N. Bochkov . . . . .</b>	314	205
<b>Effect of Random Perturbations on an Adaptive System. K. G. Kir'y'anov . . . . .</b>	324	210
<b>Increasing the Radiation Level in the Shadow Region from a Slot in a Cylinder. M. P. Naimushin . . . . .</b>	336	216
<b>Theory of the Smith-Purcell Effect. O. A. Tret'yakov, E. I. Chernyakov, and V. P. Shestopalov . . . . .</b>	341	219
<b>Analysis of the Focusing and Stability of Intense Electron Beams in Periodic Magnetic Fields. I. A. Danovich . . . . .</b>	351	224
<b>Contribution to the Theory of a Two-Mass Vibrator-Hammer Model. L. V. Bespalova and V. S. Metrikin . . . . .</b>	362	230
<b>Periodic Motions of Systems with Impulsive Interaction. V. A. Gorokhov . . . . .</b>	376	242
<b>Effect of Backlash Between Servomotor and Correcting Element in an Indirect-Control Process. L. G. Khaskel'berg . . . . .</b>	388	248
<b>Brief Communications and Letters to the Editor</b>		
<b>Additional Absorption of Cosmic RF Radiation in the Ionosphere During the Ionospheric Disturbance of 18 April 1965. V. V. Belikovich and E. A. Benediktov . . . . .</b>	399	254
<b>Wave Scattering by an Area with Gaussian-Distributed Random Irregularities. E. V. Chaevskii . . . . .</b>	400	255
<b>Amplification of Electromagnetic Waves by a Beam of Charged Particles for Transient Radiation at the Sharp Boundary of Two Media. S. M. Fainshtein . . . . .</b>	403	256
<b>Fluctuation-Dispersion Formulas. F. V. Bunkin and Yu. B. Konev . . . . .</b>	404	257
<b>Self-Resonant Acceleration of a Particle in an Inhomogeneous Medium. I. A. Gilinskii . . . . .</b>	407	259
<b>Self-Modeling Wave Beams in a Nonlinear Dielectric. V. I. Talanov. . . . .</b>	410	260
<b>Radial Field Distributions in a Self-Focusing Light Beam. Z. K. Yankauskas. . . . .</b>	412	261
<b>Interaction of Electron Beams with the Space-Harmonic Fields of Two-Dimensionally Periodic Slow-Wave Structures. R. A. Dudnik . . . . .</b>	415	263
<b>The Detector-Characteristic Method at Intermediate Pressures. G. A. Sobol, A. P. Sobol, M. M. Medyukh, and I. S. Galanets. . . . .</b>	417	264
<b>The Two-Probe Detector-Characteristic Method. G. A. Sobol, A. P. Sobol, R. S. Kozemchuk, and N. F. Merezhko . . . . .</b>	419	265
<b>Radial Oscillations of a Shaft in Ball Bearings with Impact. V. S. Boyarinov . . . . .</b>	421	267
<b>Approximate Synthesis of an Optimal Second-Order System with Controlled Coefficients. V. G. Erin. . . . .</b>	423	268

Available from The Faraday Press, Inc.

## METEOROLOGY AND HYDROLOGY

No. 7, July 1967

- USSR -

Following are translations of selected articles from the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 7, Moscow, Hydrometeorological Publishing House, July 1967, pages 1-129. Author's name and original source page accompany each article.

### CONTENTS

	<u>Page</u>	
Source	Report	
Fifty Years of Meteorological Research in the Eastern USSR (A. A. Kakendov, et al.) .....	3	1
Models of the Stationary Movement of Air in the Equatorial Zone (Ye. M. Dobrysh- man, et al.) .....	9	9
Possibilities for Using Satellite Radia- tion Data in Synoptic Analysis (P. N. Belov, et al.) .....	20	23
Experience in Antihail Defense in the Moldavian SSR (G. S. Voronov, et al.) ....	29	35
A Procedure for Solving Euler Equations (V. I. Gubin) .....	37	46
Available from J.P.R.S. 42, 625		(Contd)

	<u>Page</u>	
	Source	Report
Vertical Distribution of Atmospheric Precipitation in the Transcaucasus, (Kh. P. Pogosyan, et al.) .....	42	52
Characteristics of the Kinetic Energy Distribution Along 140° e.l. in January 1964 (Ye. N. Ignatyushina) .....	50	54
Markov Chains and the Probability of Unfavorable Weather Along Air Routes (A. S. Marchenko) .....	56	72
The Influence of Swamps on Maximum Discharges of River Water (G. V. Zheleznyakov, et al.) .....	68	76
Calculation of Seiche Velocities in Bodies of Water with Complex Bottom Relief (N. D. Shtefan) .....	78	89
Agrometeorological Effectiveness of Joint Use of Wooded Strips and Agro- technical Procedures to Prevent Soil Erosion (S. N. Adrianov) .....	82	95
<b><u>BRIEF REPORTS</u></b>		
Use of Certain Numerical Criteria for Objective Analysis of Fronts with Respect to a Surface Map (T. I. Molosnova).	88	103
Annual Air Temperature Trend over Nizh- neye Povolzh'ye During the IQSY (V. L. Arkhangel'skiy) .....	91	108
Underground Flow of Small Rivers in the Lena Watershed (L. Ye. Zinov'yeva) .....	93	113
Long-Range Agricultural Meteorological Tea Harvest Forecast (G. G. Meladze) .....	93	118

(Contd)

Available from J. P. R. S. 42,625

		<u>Page</u>
	Source Report	
<u>REVIEWS AND CONSULTATIONS</u>		
Automatic Hydrometeorological Service (V. V. Brezhnev, Yu. K. Fedorov) .....	100	122
Oceanographic Data Center (Yu. I. Belyayev) ....	103	129
<u>INSTRUMENTS, OBSERVATIONS AND PROCESSING</u>		
Snow Cover Density Measurement (V. F. Protsenko) .....	105	133
<u>BIBLIOGRAPHY AND REVIEW</u>		
Practical Use of Data from Meteorological Satellites (G. I. Kogan-Beletskiy) .....	107	137
New Methods for Precomputation of Meteorological Fields (B. D. Uspenskiy) .....	109	141
Bibliography on Meteorology, Hydrology and Agricultural Meteorology for 1966 .....	113	149
<u>CURRENT EVENTS</u>		
At the Main Administration of the Hydro- meteorological Service .....	117	156
At the Institutions of the Hydrometeorological Service .....	118	158
Meteorological Exhibition in Geneva .....	119	162
Anarctic Log III .....	121	165
Conferences, Meetings, Seminars .....	124	170
International Hydrological Decade .....	125	174
Abroad .....	126	175

Available from J.P.R.S. 42,625

## METEOROLOGY AND HYDROLOGY

No. 8, 1967

- USSR -

Following is a complete translation (with the exception of two articles and three short items) of the Russian-language periodical Meteorologiya i Gidrologiya (English version above), Moscow, No. 8, 1967. Author's name and original source page accompany each article.

## CONTENTS

	<u>Page</u>
Source Report	
Hydrochemical Investigations (M. N. Tarasov).....	3 1
Distribution of the Total Ozone Content Over the Northern Hemisphere (V. A. Bugayev and L. A. Uranova) .....	10 11
Numerical Forecasting of Mean Ten-Day H500 Values of the Northern Hemisphere Using Weather Satellite Data (G. I. Morskoy and S. G. Sviridova) .....	32 20
Precalculation of the Altitude and Velocity of the Maximum Wind in Jet Streams (N. V. Petrenko).....	39 29
The Effect of Horizontal Inhomogeneity of the Temperature Field on the Boundary Layer of the Atmosphere (M. I. Ruzin) .....	49 43
Using Natural Components for Objective Typi- fication of H500 Fields (A.V. Borodina)..	58 54

(Contd.)

Available from J.P.R.S. 43,349

CONTENTS (continued)

	Source	Page
Effectivness of Estimation of Empirical Influence Functions According to Types of Circulation (E. I. Mepistsveridze) .....	61	58
Changes of Thunderstorm Activity in the Solar Cycle (Z. P. Kleymenova) .....	64	64
Measurement of Wind in the Boundary Layer by Means of Radar Reflections From a "Clear Sky" (A. G. Gorelik and V. H. Patsayeva) .....	69	72
Determination of the Visibility Range of High-Intensity Lights (S. M. Aleksan- dryants, Yu. G. Konovalov, V. I. Unukov) ...	76	83
Some Problems of Long-Range Ice Forecasting Methods (B. M. Ginzburg) .....	82	91
Using the Principles of "Organogenesis Stages" in the Analysis of the Effect of Meteorolo- gical Conditions on Spring Barley Yield (V. M. Pasov) .....	96	100
<b>Reviews and Consultations</b>		
From the History of Hydrometeorological Service to the Merchant Marine and Fisheries in the Far East (I. Ye. Moshenichenko) .....	103	111
On the Economic Effectiveness of Automation of Hydrometeorological Service Units (Yu. V. Pokrovskiy) .....	107	120
<b>Book Reviews and Bibliography</b>		
Ye. Duysenov. <u>Mudflows</u> (A. I. Chebotarev)...	111	125
A. S. Sarkisyan. <u>Principles of the Theory of</u> <u>Calculation of Oceanic Currents</u> (K. P. Vasil'yev) .....	112	129
N. F. Gel'mgol'ts. Letter to the Editor ....	114	133

(Contd)

Available from J.P.R.S. 43,349

CONTENTS (continued)

		<u>Pages</u>
	Source	Report
New Books .....	115	137
Literature on Meteorology and Hydrology for 1966-1967 .....	116	139
Current Events		
Awards and Anniversaries .....	120	152
In Hydrometeorological Service Institutions ..	121	155
Conferences, Consultations, and Seminars .....	122	158
Antarctic Diary IV .....	124	164

Available from J.P.R.S. 43,349

**OPTIKA I SPECTROSKOPIYA**  
**Vol. 22, No. 6, June 67**

VOL. XXII, NO. 6

OPTICS AND SPECTROSCOPY

JUNE 1967

CONT'

(Numbers in parentheses are or in page numbers.

These Russian page numbers are also quoted at the head of each paper.)

Calculation of the Binding Energy of Inner Atomic Electrons in the Generalized WKB Approximation . . . . .	N. I. Zhitrov	469 (657)
A Semiempirical Calculation of Oscillator Strengths for the Thallium Atom . . . . .	E. M. Anderson, E. K. Anderson, and V. F. Trusov	471 (801)
Inelastic Transitions Between the Fine-Structure Components of Alkali-Metal Atoms in the Case of Adiabatic Collisions. II. Calculations of Cross Sections . . . . .	E. I. Dashevskaya and E. E. Nikitin	473 (806)
Estimating Cross Sections for Ionization in Slow-Atom Collisions . . . . .	V. N. Soshnikov and E. S. Trekhov	476 (872)
Measurement of Electron Concentration by Broadened Hydrogen Lines . . . . .	L. N. Dubrovskii and Yu. I. Galushkin	478 (876)
Excitation Time of the $B^3\Pi_g$ State of N at High Temperatures . . . . .	S. A. Losev and G. D. Smekhov	484 (889)
The Use of the Reabsorption Method for a Line with Complex Structure . . . . .	Yu. M. Kagan, B. Kasmaliev, and R. I. Lyagushchenko	486 (892)
Electronic Transitions and the Spectra of Phenylacetylene . . . . .	T. S. Zhuravleva, R. N. Nurmukhametov, Yu. I. Kozlov, and D. N. Shigorin	489 (898)
Use of the Vibrational-Rotational Interaction Constants for a More Precise Determination of the Force Field of Molecules . . . . .	L. M. Epstein and E. M. Popov	491 (903)
Absorption Spectra of Polyvinyl Alcohol Films Dyed in Solutions of Iodine in Iodides and Bromides . . . . .	S. S. Savko and G. P. Faerman	495 (912)
Infrared Absorption of Single-Crystal InSe . . . . .	E. L. Zorina, V. B. Velichkova, and T. Guliev	498 (919)
Optical Characteristic of a New Crystal Based on TlI . . . . .	M. A. Popova, T. I. Darvoid, I. G. Rudyavskaya, and L. D. Kislovskii	500 (924)
On the Parallelism Between the Temperature Dependence of the Brightness of X-Ray Luminescence and Optical Flash in Alkali-Halide Phosphors . . . . .	V. G. Krongauz	502 (927)
Photoluminescence of Mixed CdSe-CdS Crystals at $T = 4.2^\circ\text{K}$ . . . . .	V. V. Sobolev	504 (931)
Optical Properties of Double Metallic Films . . . . .	E. F. Idezak	507 (935)
Transparency Limits of Interference Films of Hafnium and Thorium Oxides in the Ultraviolet Region of the Spectrum . . . . .	A. A. Sviridova and N. V. Sukovskaya	509 (940)
Contribution to the Theory of the Nonlinear Optical Waveguide . . . . .	V. F. Marchenko	512 (946)
Reflection of Light by a Rough Glass Surface at Large Angles of Incidence of the Illuminating Beam . . . . .	N. A. Voroshillo	517 (956)
Study of the Divergence of the Radiation of Helium-Neon Lasers . . . . .	F. A. Abramskii, L. Ya. Gustyr, and V. V. Dontsova	520 (962)
Efficiency of the Optical System of a Solid-State Laser with Cathode Luminescent Pumping . . . . .	Yu. G. Anikiev and B. D. Zorin	522 (964)
<b>SHORT COMMUNICATIONS</b>		
Line Shape of the Spontaneous Emission of an Atom in the Case of Imperfect Intermixing of Degenerate Levels . . . . .	V. A. Morozov	526 (971)
Use of Multilayer Dielectric Coatings for White Light Interference . . . . .	I. N. Shklyarevskii, T. I. Koroleva, and E. A. Lupashko	528 (973)
IR Spectral Absorption Study of Rotational Isomerism in the Lister Group of Polymethylmethacrylate . . . . .	O. N. Trepeznikova and T. V. Belovolotskaya	529 (974)
On the Possibility of Using a Perturbation Method to Calculate the Vibrational Frequencies of Polyatomic Molecules . . . . .	I. A. Gribov	530 (976)

(Contd.)

Available from Optical Society of Am

Best Available Copy

Nature of the Long-Wavelength Absorption and Luminescence Bands of Cyanine Dyes . . . . .	532 (979)
Electroluminescence and Semiconducting Properties of CdF <sub>3</sub> Single Crystals Activated by Rare Earth Ions . . . . .	534 (981)
Production of One Longitudinal Mode in a Ruby Laser . . . . .	535 (984)
Narrow-Band Interference Filters for the Ultraviolet Region of the Spectrum . . . . .	537 (986)
Intensity Distribution in the Rotational and Vibrational Structure of N <sub>2</sub> Bands Due to the Passage of H <sub>3</sub> <sup>+</sup> Ions through a Nitrogen-Helium Mixture . . . . .	538 (988)
Fluorometric Study of the Mechanism of Temperature Variations in the Fluorescence Spectrum of 3-Aminophthalimide Solutions in Frozen Dioxane . . . . .	540 (991)
Characteristics of the Luminescence of Frozen Solutions of Organohammines in Mixtures of Polar and Nonpolar Solvents . . . . .	542 (993)
Astigmatism of a Noncentered Multipass-Cell System . . . . .	544 (995)
Magnetooptic Rotation in Crystals Activated by Paramagnetic Rare Earth Ions . . . . .	545 (996)
Absorption Spectra of Acid Adducts of Phthalocyanine Lanthanides . . . . .	546 (998)
REVIEWS	
Absorption Spectra of Molecular Crystals: Benzene and Some of Its Homologs. By V. L. Broude, G. V. Khimicheva, A. L. Liberman, M. I. Onoprienko, A. F. Prikhodko, and A. I. Shatenshtein. Naukova Dumka, Kiev, 1965 . . . . .	547 (1000)
Author Index, Vol. XXII . . . . .	550 (1001)
Contents List, Vol. XXII . . . . .	560 (1010)

Available from Optical Society of Am

UDC 519.95

PROBLEMS OF CYBERNETICS

No. 18, 1967

- USSR -

Following is a complete translation of the Russian-language periodical Problemy Kibernetiki (English version above), No. 18, Moscow, 1967, pages 1-316. Authors' names and original source pages accompany each article.

CONTENTS

	<u>Page</u>	
Source	Report	
<u>Control System Theory</u>		
The Completeness Criterion of Systems of Functions in $P_k$ (Ye. Yu. Zakharova) .....	5	1
Comparison of Complexities of Minimal and Shortest Disjunctive Normal Forms for Functions of the Algebra of Logic (Ling Hsing-Liang).....	11	10
Unconditional Tests for Some Class of Tables (N. A. Solov'yev) .....	45	53
Simulation of 1-Valued Logic in k-Valued Logic ( $k > 1$ ) (Yu. N. Tolstova) .....	67	80
Complexity of Realization of Binary Functions Having Few "Subfunctions" (A. L. Toom) .....	83	102

(Contd)

Available from J.P.R.S. 41,797

CONTENTS (continued)

	<u>Page</u>	
Source		Report
<u>Programming and Computer Experimentation</u>		
The Solution of Problems in Harmony and Analysis of Harmonization on a Digital Computer (R. Kh. Zaripov) .....	91	112
<u>Problems in Mathematical Economics</u>		
Problem in Optimal Scheduling of Work on n Machine Tools (V. N. Shevchenko) .....	129	165
<u>Control Processes in Living Organisms</u>		
Discriminant Analysis Distinguishing Three or More Sets in the Taxonomy of Chaetocnema Flea Beetles (G. M. Genkina, et al.) .....	147	187
Opposite Pressures of Selectivity on Genotype and Character in Sex-Linked Mutation (Yu. M. Svirezhev, et al.) .....	155	197
Sufficient Conditions of Existence of a Polymorphism for Sex-Linked Mutation (Yu. M. Svirezhev, et al.) .....	171	216
<u>Problems in Mathematical Linguistics</u>		
The Problem of Operator Writing of an English-Russian Translation Algorithm (G. P. Lagrinovskaya) .....	175	221
An Algorithm for Syntactic Analysis of Russian Texts (G. V. Vakulovskaya, et al.) .....	217	277
<u>Brief Reports</u>		
Construction of Universal Switching Circuits (Ia. V. Sherisheva) .....	303	380
Vsevolod V. Zav'yalov .....	315	393

(Contd)

Available from J.P.R.S. 41,797

PROBLEMY KIBERNETIKI  
No. 18, 1967

CONTENTS (continued)

	<u>Source</u>	<u>Page</u>	<u>Report</u>
<u>Current Events</u>			
Cybernetics Seminar at the Moscow State University .....	315		394
Letters to the Editor .....	316		397

Available from J.P.R.S. 41, 797

# PROBLEMS IN INFORMATION TRANSMISSION

Vol III, No 2, June 1967

[Following is a complete translation of the Russian-language journal Problemy Peredachi Informatsii (English version above), Vol III, No 2, June 1967, published by "Nauka" (Science) Publishing House, Moscow. Author's name and original page numbers cited with each article.]

## CONTENTS

	<u>Page</u>
Information and Entropy of Segments of Stationary Gaussian Processes.....	1
On the Asymptotic Capacity of Countable-Alphabet Channels and Its Application to Asynchronous Channels.....	34
Two-way Discrete Memoryless Channels.....	53
On Sequential Signal Transmission in a Gaussian Channel with Feedback.....	74
Bounds on Decoding Error Probability for Linear Codes in Memoryless Channels.....	88
On Algorithms for Transformation of a Binary Code into a Uniform Binary Code Permitting an Increase in Information Transmission Rate.....	101

(Contd)

Available from J.P.R.S. 42,439

Contents (Continued)	<u>Page</u>
Memory Reduction in an Automaton Which is Resistant to Damage and Racing of Its Internal Elements.....	118
Optimal Filtration with Allowance for Quantum Effects.....	140
Analysis of Synaptic Information Trans- mission in the Nervous System: Sig- nal Transmission in the Synaptic Endplate.....	149
<b>BRIEF REPORTS</b>	
Message Transmission over Gaussian Chan- nels with Feedback.....	160
An Algorithm for Cyclic-Code Correction of Independent Errors.....	166
On the Detection of Coherent Optical Radiation in Thermal Noise.....	171
Computer Recognition Utilizing Linear- Programming Methods.....	175

Available from J.P.R.S. 42, \$39

PROBLEMS OF INFORMATION TRANSMISSION

Vol. III, No. 3, 1967

- USSR -

Following is a complete translation of the Russian-language periodical Problemy Peredachi Informatsii (English version above), Vol. III, No. 3, July-September 1967, pages 3-79. Author's name and original source accompany each article.

CONTENTS

	<u>Page</u>
Source	Report
On the Structure of Separable AN-Codes....	3 1
On the Empirical Bayesian Solution to the Problem of Threshold Discrimination of Two Signals.....	8 10
Some Asymptotic Properties of Bayes Esti- mation of Regression Coefficients in the Presence of Nonstationary Noise....	18 28
Optical Signal Detection by Photo- receiver with Input Quantum Ampli- fier.....	23 35
Compression of Discrete Information.....	28 45
A Very Simple Stochastic Model of Collective Behavior.....	37 60

(Contd)

Available from J.P.R.S. 43,364

PROBLEMY PEREDACHI INFORMATSII  
Vol 3, No. 3, 1967

	<u>Page</u>	
	Source	Report
On a Mass-Servicing Problem with After-effect.....	53	87
Queueing Systems with Devices Which Can Get Out of Order and Be Restored....	59	95
Syllable Recognition on the Basis of "Visible Speech".....	64	104
<b>BRIEF REPORTS</b>		
A Class of Arithmetic Multi-error Correcting Code.....	73	119
On the Selection of Some Commands for Data-processing and Control Com- puters.....	76	126
Obituary of Nikolay Dmitriyevich Nyuberg.....	78	131

Available from J.P.R.S. 43,364

A. M. Kuzin, N. I. Yusifov. Radiation Sensitivity of Different Stages of Development of <i>Ephestia Ruchniella</i> L. in the Light of the Concept of DNA Transinduction.....	1
A. M. Tongur, A. G. Pasynskii (deceased). Changes in the Permeability of a Nucleoprotein Membrane Following UV Irradiation.....	8
N. Ya. Savchenko, I. K. Sokolova, I. B. Keirim-Markus. Investigation of Spatial Distribution of Absorbed Doses of X Rays of Varying Hardness in a Tissue-Equivalent Dog Phantom.....	18
G. M. Avetisov. Dependence of LD <sub>50/30</sub> on the Spatial Distribution of X-Ray Radiation During Unilateral Irradiation of Rats.....	23
Yu. G. Kapul'tsevich. Selection of a Mathematical Model of Post-Irradiation Recovery of Yeast Cells After Lethal Irradiation.....	29
N. P. Krushinskaya, M. I. Shal'nov. Nature of Breaks in the DNA Chain Upon Irradiation of Aqueous Solutions.....	36
I. P. Moskalenko. Participation of "Acid" Deoxyribonuclease (DNA-ase II) in the Initial Biochemical Mechanisms of the Action of Ionizing Radiation on Animals.....	46
A. M. Auzin, S. K. Mel'nikova. Effect of $\gamma$ -Radiation on the Adaptive Synthesis of Tryptophan-pyrrolase in the Rat Liver.....	55
N. I. Elkina. Calcium and Phosphorus Metabolism in Rabbit Bone under the Effect of Plutonium-239.....	63
A. I. Nikolaev, G. S. Suleimanova, F. G. Mukhtarova. Interrelations of Changes in the Content of Proteins, Vitamins and Inorganic Substances in the Blood of Irradiated Rabbits.....	73
V. P. Pugachevskii, L. A. Dobrovolskii. Mechanism of the Effect of P in Various Concentrations on Some Radiobiological Parameters.....	78

(Contd)

Available from AEC-tr-6886

	<u>Page</u>
E. P. Ovcharenko. Characteristics of the Metabolism of $^{144}\text{Ce}$ Chloride in Rats After Partial Hepatectomy.....	84
M. P. Domshlak, N. G. Darenetskaya, B. G. Gorlov. Quantitative Recovery Characteristics After General and Local $\gamma$ -Irradiation of Rats.....	90
T. N. Fokina. Delayed Effects of Systematic Irradiation of Growing Animals with Ionizing Radiation.....	96
O. Ya. Tereshchenko. Role of the Spleen in Post-Irradiation Deoxycytidinuria of Rats.....	103
V. G. Vladimirov. Intracellular Distribution of $^{35}\text{S}$ in the Liver and Spleen of White Mice After Injection of $^{35}\text{S}$ -Labeled $\beta$ -Aminoethylisothiuronium, Cystamine and Disulfide 5-Mercapto-pentylamine.....	109
A. I. Il'enko, G. N. Romanov. Seasonal and Age Variation in the Skeletal Radioactivity of <i>Microtus Agrestis</i> L. Following Incorporation of $^{90}\text{Sr}$ Under Natural Conditions.....	117
Z. Ya. Baltbarzdys, S. G. Bilushi, E. A. Goïda, Yu. B. Kudryashov, A. M. Kuzin, N. E. Levedeva. Direct and Distant Effects of Radiation on the Level of Quinones in Organs and Tissues of Rats.	122
M. B. Gol'dberg. Effect of Aminoethylisothiuronium Br·HBr (AET) on the Central Nervous System of Prenatally Irradiated Rats.....	127
E. I. Sklyanskaya, O. P. Peterson. RNA-ase Activity in the Lungs of Irradiated Mice After Infection with the Virus of Influenza.....	136
V. I. Efimov. Effectiveness of DTPA Administration on Introduction of Radioactive Isotopes of Barium and Lanthanum into the Organism.....	142
Yu. P. Vinetskii. The Protective Effect of Cystamine During Irradiation of DNA- and RNA-Containing Bacteriophages in Broth.....	147
V. G. Vinogradova. The Paramecia Toxemia Reaction and the Detoxicating Effect of Low-Molecular Polyvinyl Alcohol in the Blood of Irradiated Rabbits.....	152
S. P. Yarmonenko. Action of Chemical Radiation Protectors Under Conditions of Fractionated Irradiation. IV. Protective Effect on Injection of Radiation Protector During Irradiation..	159
P. G. Zherebchenko, T. G. Zaitseva. Characteristics of Accumulation of Neutral Red in the	

(Contd)

Available from AEC-tr-6886

	<u>Page</u>
Organs of Mice at Various Intervals After Administration of Radioprotective Substances....	168
A. F. Mosin. Mechanism of Inhibition of Post-Irradiation Recovery of Yeast By Ethyl Alcohol..	178
L. A. Belova, E. B. Burlakova, B. I. Kurganov, N. G. Khrapova, V. N. Shtol'ko. Kinetic Method of Investigation of the Radioprotective Effect Exerted by Inhibitors of Radical Reactions.....	187
Cm. Grigoresku, K. Nedelku, M. Nestase. Effect of Two Substances Protecting Against Radiation, Cysteine and Adrenaline, on the Distribution of $Na_2^{51}CrO_4$ in the Animal Organism.....	196
E. F. Romantsev, S. K. Khalikov. Biosynthesis of Inosinic Acid in the Hyaloplasm of Pigeon Liver on Introduction of a Radioprotective Substance..	203
E. Ya. Graevskii, M. M. Konstantinova, I. V. Nekrasova, O. M. Sokolova, and A. G. Tarasenko.. Correlation Between Changes in Radiation Sensitivity and Level of Endogenous Thiol Groups Under the Effect of Radioprotective Agents.....	208
E. V. Budnitskaya, V. N. Stoletov, A. M. Chopyak. Changes in Nucleic Acid Metabolism in the Ontogenesis of Irradiated Wheat Seeds.....	212
A. G. Sidorskii. Effect of $\gamma$ -Irradiation of Seeds on the Development of Male and Female Flowers of Cucumber Plants.....	220
N. F. Filippova. Action of $\gamma$ -Irradiation and of Radiation Toxins on the Meristem of Rye Roots...	225
V. I. Tokarskaya. Brief Reports. Detection of Natural DNA-RNA Hybrid Complexes in Embryonic Tissue of Seeds.....	232
E. F. Romantsev, V. I. Stanko, E. V. Kozyreva. Sensitization of the Animal Organism to the Action of Fast Neurons and $\gamma$ -Rays by Borene Derivatives.....	236
N. E. Lebedeva, E. I. Ginzburg, K. S. Trincher. Radiomimetic Action of Products of the Oxidation of Tyrosine on the Erythrocyte Membrane....	240
V. E. Drozdov, Yu. S. Ryabukhin. Letters to the Editor. Calculation of the Absorbed Dose in Extended Objects of Emission from a Linear Radiation Source.....	245
L. N. Yasnova. Activity of Succinodehydrogenase in Mammal Tissue Cell in the Presence of a Remote Mutagenic Effect of Ionizing Radiation.....	249

Available from AEC-tr-6886

G. P. Zhizhina. Radioprotective Action of In-  
hibitors of Radical Processes in Experiments  
with Transformation-Active DNA.....

253

Available from AEC-tr-6886

V. A. Kolosov and V. V. Shergin: Selecting the Optimum Operating Point in Power Amplification of a Single-Sideband Signal . . . . .	117
I. M. Kogan: Multichannel Cross-Correlation Processing of Signals as a Method of Enhancing Noise Immunity for a Restricted Analysis Time . . . . .	124
V. D. Konovalov and V. I. Tikhonov: Variance of the Number of Crossings in Realizations of a Random Signal . . . . .	130
<b>BRIEF COMMUNICATIONS</b>	
Yu. V. Pimenov and V. A. Kravtsov: Reflection of a Plane Electromagnetic Wave from a Perfectly Conducting Triaxial Ellipsoid . . . . .	136
F. M. Yavoloskiy and G. M. Yankin: Calculation of Dekatron Static-Circuit Parameters . . . . .	139
S. V. Samsonenko: Optimum Measurement of Angular Coordinates in the Presence of Noise . . . . .	141
B. R. Levin and Ya. A. Fomin: Application of the Time-Quantization Method for Determining the Duration Distribution of Between-Crossing Intervals in the Envelope of Gaussian Noise . . . . .	144
V. B. Malygin: Efficiency of a Diversity- Reception System with Antenna Switching . .	147
M. R. Reznikov: Conference on the History of Soviet Radio Engineering and Telecommunications . . . . .	149
<b>LETTERS TO THE EDITOR</b>	
F. P. Tarasenko: On I. M. Kogan's Paper "Is Telepathy Possible?" . . . . .	151
G. D. Burdun, On His Sixtieth Birthday . . . . .	153
New Books . . . . .	154

EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ ( $\operatorname{ctnh}^{-1}$ )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ (arc cos)
arcctg	$\cot^{-1}$ (arc cot)
arcsin	$\sin^{-1}$ (arc sin)
arctg	$\tan^{-1}$ (arc tan)
ch	$\cosh$
cosec	$\csc$
ctg	$\cot$ (ctn)
cth	$\coth$ ( $\operatorname{ctnh}$ )
rot	$\operatorname{curl}$
sch	$\operatorname{sech}$
sh	$\operatorname{sinh}$
tg	$\operatorname{tan}$
th	$\operatorname{tanh}$

Available from Institute of Electrical and Electronics Engineers

## РАДИОТЕХНИКА И ЭЛЕКТРОНИКА

RADIOTEKHNIKA I ELEKTRONIKA  
No. 4, 1967

NUMBER 4

1967

## CONTENTS

	Page
O. Ye. Antonov: Optimum Detection of Signals in Non-Gaussian Noise . . . . .	541
Ye. F. Babushkin and A. P. Rodimov: The Average Number of Overlapping Zeros of the Absolute Value and Argument of the Phasor of a Partially Polarized Wave. . . . .	549
P. V. Blokh and V. D. Freylikher: The Effect of Random Inhomogeneities of the Medium on Antenna Aperture Synthesis Based on Video Pulses. . . . .	557
N. A. Savich: General Properties of Dispersion Interferometers . . . . .	564
V. V. Shevchenko: Diffraction of a Plane Wave on a Nonhomogeneous Sector of an Impedance Plane . . . . .	570
Yu. S. Bondartsev and V. A. Antonov: Analysis of Antenna with Rotating Polarization . . . . .	577
A. V. Gaponov and V. K. Yulpatov: Interaction of Helical Electron Beams with the Electromagnetic Field in a Waveguide . . . . .	582
G. N. Rapoport, A. K. Nemak and V. A. Zhurakovskiy: Interaction between Helical Electron Beams and Strong Electromagnetic Cavity-Fields at Cyclotron-Frequency Harmonics . . . . .	587
N. I. Mikheyev, R. K. Chuyan and P. M. Bryukhnov: An Approximate Design Method for Strong Curvilinear Charged Particle Beams . . . . .	596
V. N. Verkhoturov and I. T. Trofimenko: Study of a Refrigerated Parametric Amplifier Using a Semiconductor Diode . . . . .	602
K. S. Karplyuk and S. M. Levitskiy: Interaction between Electron Beam and a Layer of Transversely Inhomogeneous Plasma . . . . .	606
G. G. Gurbanov, P. P. Kas'yankov and I. N. Taganov: Propagation of the Potential of a Field into Space According to a Given Distribution Along the Axis. . . . .	610
A. D. Dymnikov, T. Ya. Fishkova and S. Ya. Yavor: Spherical Aberration of Stigmatic Doublets Consisting of Short Quadrupole Lenses . . . . .	613
V. A. Kuz'min and V. A. Brazhnikov: Spontaneous Switching of p-n-p-n Devices . . . . .	618
A. A. Lebedev, A. I. Uvarov and V. Ye. Chelnokov: Establishment of the Stationary State for Turning on a p-n-p-n Structure . . . . .	626
A. A. Lebedev and A. I. Uvarov: The Charge Dissipation Time Constant in a p-n-p-n Structure During Switch-Off Under the Influence of a Reverse Anode Voltage . . . . .	634
A. Yu. Anupyl'd, N. N. Goryunov, V. G. Grigor'yan, Yu. A. Ovechkin and Ya. A. Tolkacheva: The Effect of a Magnetic Field on Breakdown Localization in p-n Junctions . . . . .	640
Yu. I. Vorontsov, M. I. Kozhevnikova and I. V. Polyakov: Wave Processes in Active RC-Lines . . . . .	644
<b>BRIEF COMMUNICATIONS</b>	
V. I. Aksenov and I. V. Lishin: Effect of Ions on the Propagation of Electromagnetic Waves of Very Low Frequencies Through the Ionosphere . . . . .	648
L. T. Remizov, A. V. Potapov and V. R. Vikhrov: Distribution of the Probabilities of Intervals between Pulses of Atmospheric Noise . . . . .	651
A. N. Yur'yev: Directional Properties of Optimal Systems for Spatial-Temporal Processing of Signals . . . . .	654
N. I. Pilipchuk: Sequential Methods of Decoding at High Transmission Rates . . . . .	659
V. P. Sizov and M. V. Kapranov: Optimal Phase-Automatic-Frequency-Control System . . . . .	661
A. N. Bruyevich: Frequency Multiplication Using a Grounded Grid Triode and Using a Diode . . . . .	664

(Contd)

Available from The Institute of Electrical and Electronics Engineers

**RADIOTEKHNIKA I ELEKTRONIKA**  
No. 4, 1967

Page

B. A. Panchenko: Diffraction of an Electromagnetic Wave by a Flat Screen Having a Finite Thickness and Evenly Distributed Apertures . . . . .	667
V. I. Karpukhin: The Directional Average Power Diagram of a Nonuniform Linear Van-Atta Array . . . . .	670
L. G. Koryakin and A. M. Sevast'yanova: On Interaction of Radiators . . . . .	674
V. Ya. Smorogonskiy and A. I. Kovshov: Graphical-Analytical Analysis of the Dispersion Characteristic of a Partially Filled Circular Waveguide . . . . .	676
V. A. Lyashchenko and Yu. V. Shubarin: Study of L Waveguides . . . . .	680
A. A. Kuznetsov, D. I. Mash, V. V. Morozov and N. V. Skuratova: The Dependence of the Output Power of a He-Ne Laser on the Laser Parameters at a Wavelength of 6328 Å . . . . .	683
A. A. Zaytsev and B. N. Shvilkin: The Character of Moving Striations Near the Limit of Their Region of Existence when the Pressure Decreases . . . . .	686
A. Ya. Kazanskaya and A. B. Yastrebov: The Emission of Microwave Noise Oscillations of Anomalous Intensity by a Gas Discharge Plasma . . . . .	688
A. N. Danilov: Application of RC Circuit to a Superregenerative Tunnel-Diode Amplifier with Self-Quenching . . . . .	690
Ya. G. Rodionov: Regenerated Tracking Filter . . . . .	692
E. B. Ol'derogge: Calculation of the Coupling and Depression Coefficients for a Slow-Wave Comb Structure . . . . .	695
Yu. F. Ogrin, V. N. Lutskiy, R. M. Sheftal', M. U. Arifova and M. I. Yelinson: Quantum Effects in Thin Bismuth Films . . . . .	699
I. L. Sokol'skaya and S. A. Shakirova: Electron Field Emission of Tungsten Coated with Thin Aluminum Oxide Films . . . . .	701
V. P. Sushkov and M. I. Iglytsyn: The Recombination Properties of Copper in Gallium Arsenide . . . . .	704
D. N. Nasledov, N. N. Smirnova and S. V. Slobodchikov: Investigation of the Dependence of the Capacitance on the Reverse Voltage of Alloyed InAs Diodes . . . . .	706
L. G. Nagornyykh: The Minority Carrier Density Distribution in the Base of a Semiconductor Diode Turned on with a Forward Current Pulse . . . . .	708
L. G. Lavrent'yeva, M. D. Vilisova and A. P. Vyatkin: An Investigation of Tunnel p-n Junctions in Polycrystalline Gallium Arsenide Films . . . . .	710
V. N. Ivashko: The Volt-Ampere Characteristics of p-n Junctions in InSb at Helium Temperatures . . . . .	715
V. A. Kuz'min: The Switching Voltage in Thyristors . . . . .	717

EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	$\cosh^{-1}$
Arcth	$\coth^{-1}$ ( $\text{ctnh}^{-1}$ )
Arsh	$\sinh^{-1}$
Arth	$\tanh^{-1}$
arccos	$\cos^{-1}$ ( $\text{arc cos}$ )
arcctg	$\cot^{-1}$ ( $\text{arc cot}$ )
arcsin	$\sin^{-1}$ ( $\text{arc sin}$ )
arctg	$\tan^{-1}$ ( $\text{arc tan}$ )
ch	$\cosh$
cosec	$\csc$
cug	$\cot$ ( $\text{ctn}$ )
cth	$\coth$ ( $\text{ctnh}$ )
rot	$\text{curl}$
sch	$\text{sech}$
sh	$\sinh$
th	$\tan$
th	$\tanh$

Available from The Institute of Electrical and Electronics Engineers

TRANSLATIONS ON SOVIET PUBLIC HEALTH

No. 8, 1967

Following is a translation of eight articles in the Russian-language periodical *Sovetskoye zdravookhraneniye* (Soviet Public Health), No. 8, Moscow, 1967. Complete bibliographic information accompanies each article.

CONTENTS

	<u>Page</u>
Problems in the Placement and Employment of Medical Personnel.....	1
Analysis of Ratio of Medical Personnel to Populace in USSR	10
The Use of Programmed Learning in Upgrading Physicians' Skills .....	19
Ways of Upgrading the Skills of Medical Personnel .....	22
Special Ten-Day Courses for Physicians at Sechenov Institute .....	27
Study of the Practice of Planned Parenthood .....	29
Research Programs of Social Hygiene and Public Health Organization Chairs of RSFSR Medical Institutes .....	33
New Procedure for Keeping Medical Records .....	41

Available from J.P.R.S. 42,819

TRANSLATIONS ON SOVIET PUBLIC HEALTH

No. 9, 1967

Following is a translation of seven articles in the Russian-language periodical Sovetskoye zdravookhraneniye (Soviet Public Health, No. 9, Vol. 26, Moscow, 1967. Complete bibliographic information accompanies each article.

CONTENTS

	<u>Page</u>
Certain Problems in Teaching Social Hygiene and Public Health Organization in Therapeutic and Pediatric Departments .....	1
Training in Social Hygiene and Public Health Organization at Bases Under Therapeutic-Prophylactic Institutions .....	13
Morbidity and Mortality in the Ukraine as a Function of Geographic Location .....	20
The Use of Perforated Cards for Mass Prophylactic Examinations ...	28
Perforated Cards Used for Keeping Medical Records on Plant Personnel .....	35
Erroneous Diagnoses of Surgical Diseases by Ivanovo Medical Facilities Analyzed .....	39
Vital Questions in the Financing of Public Health .....	45

Available from J.P.R.S. 43,105

## TECHNICAL CYBERNETICS

No. 4, 1967

- USSR -

Following is a complete translation of the Russian-language periodical Tekhnicheskaya Kibernetika (English version above), No. 4, Moscow, July-August 1967, pages 1-191. Author's name and original source page accompany each article.

## CONTENTS

		<u>Page</u>
Source	Report	
<u>Control Problems</u>		
Information Aspects of Industrial Process Control (B. N. Petrov, et al.) .....	3	1
Transformations of Variation Problems. II (A. D. Ioffe) .....	15	19
Asymptotic Estimates of the Rate of Convergence of Random Search (E. M. Vaysbord) ....	24	34
Stochastic Optimization of Parameters by the Method of Variation of the Search Region (N. V. Khovanov) .....	34	50
<u>Queueing and Reliability Theory</u>		
A Multichannel Queueing System with Group Arrival of Demands (L. M. Abol'nikov) .....	41	61
(Contd)		

Available from J.P.R.S. 43,249

CONTENTS

	Source	Report
An Approach to the Problem of Statistical Evaluation of System Reliability (V. A. Ivnitskiy) .....	50	74
Determination of the Quantitative Influence of Various Factors on the Intensity of Failure of Elements of Automatic Systems (Ye. I. Vorob'yev, et al.) .....	58	86
A Procedure for Investigating the Reliability of Complex Logical Control Systems by the Method of Statistical Simulation (B. B. Suyznov, et al.) .....	63	93
<u>Pattern Recognition. Automata</u>		
The Influence of Correlations between Attributes on Their Informativeness in Pattern Recognition (A. G. Frantsuz) .....	67	100
Synthesis of a Type of Synchronous Automaton (Ye. A. Gurvits) .....	71	107
Optimal Scheduling of Processing of Parts on Three Sequential Machines (B. A. Vlas'yuk) .....	79	121
An Algorithm for Checking the Connectedness of a Graph (I. A. Ushakov) .....	85	131
Consideration of the Characteristics of the Elements when Constructing Combination Systems (Ye. A. Drozdov) .....	87	134
Conversion of Digital Code Into Voltage Using Incremental Integration (G. Kh. Babich et al.).....	96	148
<u>Automatic Control</u>		
The Problem of Synthesis of Autonomic Controls. I (T. A. Letova) .....	104	162
The Inverse Problem of Synthesis of Optimal Control (A. G. Aleksandrov) .....	115	178
The Method of Statistical Optimization of Nonlinear Pulse Automatic Control Systems (A. Ya. Andriyenko) .....	123	189

(Contd)

Available from J.P.R.S. 43,249

- 145 -

TEKHNICHESKAYA KIBERNETIKA  
No. 4, 1967

CONTENTS

	Source	Report
A Form of Stability of Nonlinear Pulse Systems (Yu. N. Chekhovoy) .....	134	205
Synthesis of Correction Systems with Finite Memory (S. G. Duvanov, et al.) .....	142	217
The Problem of Statistical Investigation of A Self-Adjusting System with a Standard Model (Ye. A. Sankovskiy, et al.)..	151	232
An Extremal Self-Adjusting System Based on Measurement of the Phase Shift (K. I. Baykin) .....	157	241
The Quasistatic Condition of the Parametric Curve of a Self-Adjusting System with a Spectral Analyzer (I. N. Pechorina et al.)..	162	250
Improvement of the Quality of Digital Smoothing Devices with a High Order of Astatism (Yu. M. Korshunov, et al.) .....	168	261
Dynamic Properties and Characteristics of Nonstationary Linear Systems of the Second Order (V. P. Bulekov, et al.) .....	173	269
Search Time of a Periodic Pulse Sequence in a Pulse Flux Using Triggers (V. V. Vasil'yev) .....	181	282
Comments on the Article by N. N. Korobov Entitled "Evaluating the Efficiency of Automatic Control Systems which are Self-Adjusting with Respect to the Input Signal" (Yu. A. Gopp) .....	187	291
Response to the Remarks by Yu. A. Gopp (N. N. Korobov) .....	189	296

Available from J.P.R.S. 43,249

USPEKHI FIZICHESKICH NAUK  
Vol 91, Nos. 3-4, 1967

SOVIET PHYSICS USPEKHI

VOLUME 10, NUMBER 2

SEPTEMBER-OCTOBER 1967

CONTENTS	Page	Russian Reference
The Prospects of Investigations of the Problem of Controlled Nuclear Fusion . . . . .	117	91, 365
Plasma Instability and Controlled Thermonuclear Reactions . . . . .	127	91, 381
Powerful Gas Lasers (E) . . . . .	131	91, 389
CO <sub>2</sub> Lasers . . . . .	153	91, 425
Statistical Theory of Electrolyte Solutions of Intermediate Concentrations . . . . .	171	91, 455
Physical Basis of the Spectroscopy of Light-scattering Substances (T) . . . . .	188	91, 569
Motion and Spreading of Inhomogeneities in a Plasma . . . . .	214	91, 609
Radiospectroscopy of Organic Semiconductors (E) . . . . .	237	91, 645
<u>Physics of Our Days</u>		
The Problem of Quarks in Cosmic Rays (T) . . . . .	256	91, 541
<u>From the Current Literature</u>		
Experimental Searches for Fractionally Charged Quarks in Matter (T) . . . . .	262	91, 551
<u>Meetings and Conferences</u>		
All-union Conference on Cosmic-ray Physics . . . . .	265	91, 555
I. M. Dremin, G. B. Zhdanov, and S. I. Syrovatskii		
<u>Personalia</u>		
Il'ya Mikhalevich Lifshitz . . . . .	268	91, 559
M. Ya. Azbel' and M. I. Kaganov		

Available from The American Institute of Physics  
Vol 10, No. 2, 1967

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 10, October 1967

Following is a complete translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), No 10, Moscow, October 1967, pages 1-88. Author's name and original source page accompany each article.

CONTENTS	<u>Page</u>	
	Source	Report
Suppurative Processes in the Lungs (V.N. Struchkov, V.A. Sakharov)	3	1
Surgical Management of Bronchiectasis in Children (A.G. Pugachev et al)	11	12
Choice of Therapy for Pulmonary Carcinoma (B.Ye.Peterson et al)	17	20
Difficulties and Prospects in Treatment of Pulmonary Carcinoma (A.V. Grigoryan, S.V. Lokhvitskiy)	24	32
Sternopericardial Approach to Major Bronchi through the Aortocaval Space in Surgery for Bronchial Fistula (L.K. Bogush et al)	31	41
Treatment of Nontuberculous Spontaneous Pneumothorax (V.S. Savel'yev)	37	53
The Surgeon's Tactics in Restoring Respiratory Function of the Lung Following Conservative Resection (N.I. Gerasimenko, I.V. Anisimov)	42	60
Conservative Resection in Cases of Peripheral Pulmonary Carcinoma (M.M. Voropayev, A.A. Miamyan)	47	68

(Contd)

Available from J.P.R.S. 43,424

	<u>Page</u>	
	Source	Report
Plastic and Reconstructive Bronchial Surgery -- A New Branch of Lung Surgery (M.I. Perel'man, A.P. Kuz'michev)	50	75
Anesthetization Principles in Lung Surgery (T.M. Darbinyan, M.Ya. Avrutskiy)	58	87
The Significance of Some Functional Methods of Studying External Respiration in Patients with Surgical Lung (A.M. Dobrova)	63	95
Comparative Evaluation of some Preoperative Conditioning Programs for Dogs to Inhibit Immunological Reactivity (L.M. Nedvetskaya et al)	66	99
Factors Contributing to Decrease in Resistance to Antibio- tics (Ye.A. Govorovich et al)	69	104
A.N. Bakulev, the Founder of Heart Surgery in the USSR (C.I. Burakovskiy et al)	75	112
<b>SURVEYS</b>		
Problems Related to Immunization with Liquid Vaccine Aerosols (I.I. Terskikh, A.I. Danilov)	80	118

Available from J.P.R.S. 43,424

VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 9, September 1967

Following is a complete translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), No 9, Moscow, September 1967, pages 1-85. Author's name and original source page accompany each article.

	<u>Page</u>
CONTENTS	Source Report
Interrelation between Social and Biological Factors in the Historical Development of Man (G.I. Tsaregorodtsev, V.P. Chekurin)	3 1
Lenin's Philosophical Heritage and the Problem of Logical and Historical Unity in the Development of Neurophysiology (G.Kh. Shingarov)	8 9
History of the Alliance of Philosophy and Medicine in the USSR (P.V. Alekseyev)	15 19
Correlation between Experiments and Theory in Medicine (M.Ye. Rayskina, T.A. Mikhalkovskaya)	21 28
Study of Structure and Function of Blood Vessels in the Aspect of Correlation between Matter and Movement Categories (I.K. Yesipova)	28 38
Activity of Consciousness and the Principle of Causation in Neurophysiology (M.N. Morozov)	32 44
The Problem of Life and Its Criteria (M.Ya. Berri)	42 58
Some Methodological Issues in Experimental Psychiatry (P.P. Volkov, Ts.P. Korolenko)	48 67

(Contd)

Available from J.P.R.S. 43,828

	<u>Page</u>	
	Source	Report
The Doctor and the Patient (A.F. Bilibin)	55	78
Dialectical Materialism Versus Modern Idealism in Biology and Medicine (I.D. Kalaykov)	61	87
The Concept of Information in the Light of Lenin's Theory of Reflection (D.N. Menitskiy)	65	92
<b>CONFERENCES AND MEETINGS</b>		
Marxist-Leninist Theories on the Means of Developing Natural Sciences (A.I. Danilov, N.N. Nosik)	74	104
Modelling in Biology and Medicine (Ye.S. Geller)	77	110
<b>REVIEW AND BIBLIOGRAPHY</b>		
New Trends in the Development of Philosophical Problems in Medicine (P.V. Alekseyev et al)	81	117

Available from J.P.R.S. 43,328

## VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 8, August 1967

Following is a complete translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 22, No 8, August 1967, pages 1-79. Author's name and original source page accompany each article.

CONTENTS	Page
	<u>Source</u> <u>Report</u>
V.I. Lenin on Socio-hygienic Bases of Scientific Organization of Labor (A.M. Izutkin)	3      1
Industrial Hygiene in the Past and Present (L.K. Khotsyanov)	10     11
The Problem of Pneumoconiosis Prevention in the USSR Mining Industry (Ye.I. Vorontsova)	19     22
Means and Main Results in the Development of Atmospheric Air Hygiene (D.N. Kalyuzhnny)	26     32
Main Results of Hygienic Studies in the Field of Aero-ionization (A.A. Minkh, I.N. Malysheva)	31     39
Development of the Science Dealing with Nutrition of Normal and Sick People during 50 Years of Soviet Power (O.P. Molchanova)	40     54
Hygienic Evaluation of Radio-frequency Electromagnetic Fields in Populated Areas (Yu.D. Dumanskiy)	47     65
Magnetic Fields as a Factor in the Industrial Environment (A.M. Vyalov)	52     72

(Contd)

Available from JP.R.S. 42,634

VESTNIK AKADEMII MEDITSINSKIKH NAUK SSSR  
No. 8, Aug 1967

	Page	
	Source	Report
Present Status and Prospects of Using Ultraviolet Irradiation in the Prevention of Light Deficiency (Z.D. Gorkin, N.M. Dantsig)	58	80
Current Problems Related to Sanitation of Inland Water Reservoirs (S.M. Drachev, V.Ye. Sinel'nikov)	63	86
Results and Prospects of Development of Hygiene for Children and Adolescents (on the Occasion of the 50th Anniversary of Soviet Public Health) (G.N. Serdyukovskaya, A.A. Minkh)	69	96
Some Methodological Problems in Social Hygiene (Ya. Indul'skiy)	77	107

Available from J.P.R.S. 42,634

Vestnik OF THE USSR ACADEMY OF SCIENCES

Vol 37, No 5, 1967

Following is a complete translation of the Russian-language journal Vestnik Akademii Nauk SSSR (English version above), Moscow, Vol 37, No 5, 1967, pp 1-126. Original page numbers accompany each article.

Table of Contents

	<u>Page</u>
M. V. Keldysh. Scientists -- Lenin Prize Laureates of 1967	1
High Awards to Scientific Collectives	8
In the Council for Coordinating the Scientific Work of the Academies of Sciences of the Union Republics	19
In Memory of A. A. Raspletin	34
 SCIENTIFIC PROBLEMS OF THE DEVELOPMENT OF SOVIET POWER ENGINEERING	
V. I. Popkov. Long-Distance Power Transmission	37
A. M. Zalesskiy. Ways of Building High-Capacity Very High-Voltage Equipment	46
New Scientific Instruments --	
High-Directional Antenna for Infrared Long-Wave Receivers	50
 AT THE INSTITUTES AND LABORATORIES	
S. M. Rubchinskiy. Automation of Radiotechnical Measurements in Accelerators	51
V. P. Shantarovich and V. G. Firsov. The Chemistry of the New Atoms	56
(Contd)	

Available from J.P.R.S. 43,330

L. M. Rozenfel'd and M. S. Karnaugh Low-Temperature Heat Transformers	Page 67
L. N. Men'shikov. Study of Ancient Chinese Manuscripts	71

INTERNATIONAL SCIENTIFIC LIFE

B. I. Silkin. Work of Soviet Scientists on International Programs. Some Results of IQSY	77
I. A. Pezanov. Research on the Project "The Upper Mantle of the Earth and its Influence on the Development of the Earth's Crust"	84
B. Ye. Bykovskiy and L. Ye. Rodin. The International Biological Program	89
L. D. Yablochkov. Preparation of the "General History of Africa"	94
I. Ya. Barit. Polarized Targets and Ion Sources	99
A. S. Spirin. Biosynthesis of Proteins and the Genetic Code (Winter session of the British Biophysical Society)	103
A. V. Zelenin and V. Ye. Barskiy. Modern Methods of Fluorescence and Absorption Microscopy (UNESCO Courses in Moscow)	108
L. V. Kurkina. Problems of Slavonic Etymological Research (Symposium in Moscow)	112

SESSIONS, CONFERENCES AND MEETINGS

V. I. Zakharov. Problems of Elementary Particle Physics (Session in Moscow)	117
L. M. Biberman and A. V. Nedospasov. Low-Temperature Plasma Physics (Conference in Kiev)	120
N. V. Kolkunov. Study of Strength and Plasticity (Conference in Moscow)	122
V. A. Geyderikh. Discussion of Problems of Thermodynamics of Metallic Alloys (Conference in Moscow)	125
I. V. Tananayev. News in Research on Phosphates (Conference in Moscow)	126
L. G. Baykova. The High-Strength Glass Problem (Seminar in Leningrad)	128
Yu. R. Shishlyannikov. Discussion of Problems of the Economic Reform (Scientific Conferences of Economists in Moscow)	131
F. G. Gurvich. Mathematics and Computing Technology in Branch Planning and Management (All-Union Scientific Conference in Moscow)	135
B. I. Potapovskiy. Water Resources in Foreign Countries of the East (Symposium in Moscow)	140
C. V. Loman. Nekrasov and the Russian Liberation Movement (Conference in Leningrad)	142

(Contd)

Available from J.P.R.S. 43,330

CHRONICLES AND INFORMATION

Page

The conferment of the Title "Hero of Socialist Labor upon Academicians M. A. Sholokhov, K. A. Fedin and A. Ye. Korneychuk	144
Academician N. P. Sazhin -- Hero of Socialist Labor	145
Anniversaries of Scientists	146
Awarding of Name Prizes	148
A New Scientific Center Near Moscow	151
Elections to the Academy of Sciences of the Kazakh SSR	152
Organization of the All-Union Society of Protozoologists	153

CRITIQUE AND BIBLIOGRAPHY

M. I. Isayev. <u>Yazyki Narodov SSSR</u> (Languages of the Peoples of the USSR)	154
--	-----

Available from J.P.R.S. 43,330

	Page	Russian Reference
Diffusion of a Collisionless Potassium Plasma Across a Magnetic Field in the Presence of a Drift Instability (E) . . . . . A. A. Ivanov, Ya. R. Rakhimbabaev, and V. D. Rusanov	545	833
Plasma Turbulence in the Presence of a Drift Instability (E) . . . . . N. S. Buchel'nikova, R. A. Salimov, and Yu. I. Eldel'man	548	837
Thermally Stimulated Current Under Persistent Internal Polarization Conditions (E) . . . . . V. F. Zolotarev, D. G. Semak, and D. V. Chepur	557	849
The Magnetic Properties of Uranium Tellurides (E) . . . . . V. I. Chechernikov, A. V. Pechennikov, M. E. Barykin, V. K. Slovyanskikh, E. I. Yarembash, and G. V. Ellert	560	854
Stationary Generation in an Optical Resonator with Lenses (E/T) . . . . . M. E. Globus, Yu. V. Nabolkin, A. M. Ratner, I. A. Rom-Krichevskaya, and Yu. A. Tlunov . . . . .	562	857
Influence of Dimensions on the Thermal Conductivity of Crystalline He <sup>4</sup> Samples (E) . . . . . L. P. Mezhov-Deglin	568	866
Investigation of the Rectification of a Helium Isotope Mixture in Packless Columns (E) . . . . . V. N. Grigor'ev, B. N. Yesel'son, V. A. Mikheev, and O. A. Tolkacheva	572	871
The Superconducting Properties of Rhenium (E) . . . . . N. E. Alekseevskii, M. N. Mikheeva and N. A. Tulin	575	875
Exchange Interaction and the Temperature Dependence of the Faraday Effect in Ferrimagnets (E) . . . . . M. V. Cheikin and A. N. Shalygin	580	882
Shift of End-point Energy of Bismuth Electrons in a Magnetic Field (E) . . . . . L. N. Pelikh and V. V. Eremenko	582	885
Measurement of the Anisotropy of the Energy Gap in Superconducting Indium by an Ultrasonic Method (E) . . . . . V. D. Fil', O. A. Shevchenko and P. A. Bezuglyi	587	891
Theory of the Nonlinear Properties of Ionic Crystals (T) . . . . . G. M. Genkin, V. M. Fain, and E. G. Yashchin	592	897
An Axiomatic Formulation of Quantum Electrodynamics (T) . . . . . V. D. Skarzhinskii	601	910
Interaction between a Prepolarized Beam and an Electromagnetic Field (T) . . . . . G. L. Suchkin	607	919
Scattering of Electromagnetic Waves by a System of Dipole Centers. V. L. Lyuboshitz	612	926
Phonon Induction and Echo (T) . . . . . V. R. Nagibarov and U. Kh. Kopville	618	936
Macroscopic Description of a Collision Plasma in a Strong Magnetic Field in Stability Problems (T) . . . . . A. B. Mikhalkovskii	623	943
Ionization of Hydrogen Atom by Electron-Impact in the Three-body Approximation of Classical Mechanics (T) . . . . . V. F. Brattsev and V. I. Ochukur	631	955
On the Theory of Negative Ion Formation in Slow Atomic Collisions (T) . . . . . R. Z. Vitlina and A. V. Chaplik	634	959
Vaporization of Matter Exposed to Laser Emission (T) . . . . . Yu. V. Afanas'ev and O. N. Krökhin	639	966
The Absorption of Ultrasound in Superconducting Alloys in the Mixed State (T) . . . . . V. P. Galaiako and I. I. Fal'ko	646	976
Ponderomotive Effects of Electromagnetic Radiation (T) . . . . . V. B. Braginskii and A. B. Manukin	653	986
Two-dimensional Flow of an Ideally Conducting Gas in the Vicinity of the Zero Line of a Magnetic Field (T) . . . . . V. S. Dnshennik and S. I. Syrovatskii	656	990
Thermomagnetic Effects in Finite Metal Samples (T) . . . . . M. Ya. Azbel' and V. G. Peschanskii	665	1003
Galvanomagnetic Effects in Strong Electric Fields During Nonelastic Electron Scattering (T) . . . . . I. I. Vosil'yus and I. B. Levinson	672	1013
The Electrodynamic Properties of a Mixture of Electric and Magnetic Charges (T) . . . . . V. G. Veselago	680	1025

(Contd)

(Contents continued on inside back cover)

Available from American Institute of Physics  
Vol 25, No. 4, 1967

—continued	Page	Russian Reference
Showers Produced in Lead by 0.1 to 1 BeV Photons (T/E) . . . . .	682	52, 1027
. . . . . O. A. Zal'midoroga, . . . . . Yu. D. Prokoshkin, and V. M. Tsupko-Sitnikov		
Electron Recombination in a Weakly Ionized Gas (T) . . . . .	687	52, 1034
. . . . . I. S. Veselovskii		
Plasma Confinement in Toroidal Traps with Disrupted Magnetic Surfaces (T) . . . . .	691	52, 1039
. . . . . B. B. Kadomtsev		
Resonance Effects in the Field of an Intense Laser Beam . . . . .	697	52, 1049
. . . . . V. P. Oleinik		
Acceleration of Charged Particles in Moving Traps Produced by Electromagnetic Waves (T) . . . . .	709	52, 1068
. . . . . V. Ya. Davydovskii and E. M. Yakushev		
Diffusion Growth of Pores and Prismatic Dislocation Loops in the Presence of Volume Sources of Point Defects (T) . . . . .	712	52, 1073
. . . . . A. M. Kosevich, Z. K. Saralidze, and V. B. Slezov		
Limits of Statistical Description of a Nonlinear Wave Field (T) . . . . .	718	52, 1081
. . . . . G. M. Zaslavskii . . . . . and R. Z. Sagdeev		
Geometrization of the Electromagnetic Field and Violation of Invariance (T) . . . . .	725	52, 1092
. . . . . B. A. Arbuzov and A. T. Filippov		
Wave Resistance of Superconductors in the Intermediate State (T) . . . . .	735	52, 1106
. . . . . A. F. Andreev		

Available from The American Institute of Physics  
Vol 25, No. 4, 1967

JOURNAL OF  
**GENERAL CHEMISTRY**  
of the USSR

A translation of *Zhurnal Obshchey Khimii*

Volume 36, Number 12

December, 1966

**CONTENTS**

	Engl./Russ.
EDITORIAL . . . . .	2019 2029
Nikolai Alekseevich Preobrazhenskii (Salutation on the Occasion of His Seventieth Birthday) — R. P. Evstigneeva . . . . .	2020 2029
Donor-Acceptor Interaction and Electronic Absorption Spectra. II. Complex For- mation of Dinitrobenzenes — G. L. Ryzhova, T. A. Rubtsova, and N. A. Vasil'eva .	2022 2031
Systems of a Hydrogen Acid and an Acidlike Substance Studied by the Deuterium- Exchange method. II. The System — A. P. Sannikov, É. Z. Utyanskaya, P. P. Alikhanov, and A. I. Shatenshtein . . . . .	2027 2036
Solvating Powers of Ethers Studied by the Method of Isotopic Exchange of Hydrogen II. Deuterium Exchange between Fluorene-9-d and 4'-Methoxyacetophenone or t-Butyl Alcohol Catalyzed by Lithium t-Butoxide — A. I. Shatenshtein, V. A. Bessonov, and E. A. Yakovleva . . . . .	2032 2040
Standard Thermodynamic Characteristics of the Reduction of the (Ferriciniomethyl)- trimethylammonium Cation to the (Ferrocenylmethyl)trimethylammonium Cation with Hydrogen in Aqueous Solution — T. I. L'vova, A. A. Pendin, K. D. Shirko, and B. P. Nikol'skii . . . . .	2040 2048
Complex-Forming Properties of [(2-Hydroxytrimethylene)Dinitrilo]Tetraacetic Acid — I. V. Podgornaya, A. A. Ivakin, and K. N. Klyachina . . . . .	2044 2052
Polarographic Investigation of Vinyl Monomers of the Naphthalene and Anthracene Series — T. A. Alekseeva and V. D. Bezuglyi . . . . .	2046 2054
Formation of a C-P Bond by an Electrochemical Method — L. V. Kaabak, M. I. Kahachnik, A. P. Tomilov, and S. L. Varshavskii . . . . .	2052 2060
Dihydrofuranols. XVI. Acid-Base Transformations of 2, 5-Dihydro-2-furanols — V. V. Belogorodskii, L. A. Pavlova, and É. D. Venus-Danilova . . . . .	2056 2064
Dihydrofuranols. XVII. Investigation of 2, 5-Dihydro-2-furanols with the Aid of Infrared Spectroscopy — V. V. Belogorodskii, I. G. Savich, L. A. Pavlova, and É. D. Venus-Danilova . . . . .	2061 2068
Complex-Formation Reactions of Glycine Derivatives with Some Metal Salts — A. A. Zhelnov and G. F. Gavrilin . . . . .	2065 2073
Interaction of Acetamide with Phenols in Dilute Solutions — N. Z. Rudenko and Zh. V. Shiyan . . . . .	2068 2078
$\alpha$ -Triazines. VII. Anino(dialkylamino)(fluoroalkyl)- $\alpha$ -triazines and Some of Their Reactions — A. V. Davydov and A. E. Dretov* . . . . .	2072 2079
Donor-Acceptor Interaction between m-(Vinyloxy)Anilines and Stannic Chloride — M. F. Shostakovskii, G. G. Skvortsova, K. V. Zapunnaya, Z. V. Stepanova, N. N. Chipanina, and M. A. Andriyankov . . . . .	2077 2084
(Contd)	

Available from Consultants Bureau

Imidazolinones. I. Reactions of Ethyl 3, 4-Dimethoxybenzimidate with $\alpha$ -Amino Acids -I. Kh. Fel'dman and Yu. Ya. Usaevich . . . . .	2081 2088
Migration of N-(Benzylloxycarbonyl(-3-phenylalanyl from Oxygen to Amino Nitrogen in an N, O-Peptide of Serine - M. M. Botvinnik and L. M. Koksharova . . . . .	2084 2091
Chemical Structure of the Antibiotic Albomycin. XV. Establishment of the Structure of the Pyrimidine Base of the Inactive Fraction A-1-G. I. Lavrenova, L. P. Revina, and N. A. Poddubnaya . . . . .	2088 2096
Chemical Structure of the Antibiotic Albomycin. XVI. Methylation of the Pyrimidine Fragment of the Inactive Fraction A-1-G. I. Lavrenova, L. P. Revina, and N. A. Poddubnaya . . . . .	2091 2098
Septanose Forms of 6-Amino-6-deoxy Sugars* - V. I. Veksler . . . . .	2094 2105
Mass-Spectrometric Investigation of Carbohydrates. Mass Spectrum of Methyl 2-Acetamidel-2-deoxy-3, 4, 6-tri-O-methyl- $\alpha$ -D-glucopyranoside -N. K. Kochetkov, O. S. Chizhov, and B. M. Zolotarev . . . . .	2098 2105
Synthesis of Some Derivatives of Bile Acids. IV. Hydrazides and Hydrazones of 3-Oxocholanic Acid - B. M. Savin and L. N. Volobel'skii . . . . .	2103 2111
Synthetic Investigations in the Field of Polyenic Compounds. XXVI. Synthesis of Naphthochromanols of Vitamins K <sub>2/20</sub> and K <sub>2/15</sub> and Their Derivatives - E. I. Kozlov and G. I. Samokhvalov . . . . .	2112 2120
Some 3-Hydroxytriazene Derivatives and Their Antitubercular Activity - E. V. Borisov, T. N. Zykova, and V. G. Yashunskii . . . . .	2117 2125
Directive Effect of Unsaturated Substituents Containing a Trifluoromethyl Group - L. M. Yagupol'skii, Yu. A. Fialkov, and A. G. Panteleimonov . . . . .	2120 2127
Aromatic Fluoro Derivatives. XXII. Reactions of Dihalobenzenes and Chlorobenzene with Potassium Fluoride* - G. G. Yakobson, V. E. Platonov, V. S. Kryukova, N. A. Gershgtein, and N. N. Vorozhtsov, Jr. . . . .	2124 2131
Aromatic Fluoro Derivatives XXIII. Reactions of Polychlorobenzenes with Potassium Fluoride* - G. G. Yakobson, V. E. Platonov, A. K. Petrov, V. S. Kryukova, N. A. Gershgtein, and N. N. Vorozhtsov, Jr. . . . .	2128 2135
Nucleophilic Substitution in the Aromatic Series. XIII. Reactions of p-Chlorophenyl Trifluoromethyl sulfone and 4-Chloro-3-nitrophenyl trifluoromethyl Sulfone with Sodium Alkoxides in an Alcoholic Medium - S. M. Shein, M. I. Krasnosel'skaya, and V. N. Boiko . . . . .	2135 2141
Nucleophilic Substitution in the Aromatic Series. XIV. Reactions of 1-Chloro- and 1-Alkoxy-2, 4-bis(trifluoromethylsulfonyl)-benzenes with Sodium Alkoxides in Alcoholic Media - S. M. Shein and M. I. Krasnosel'skaya . . . . .	2142 2148
Compounds Obtained from the Product of the Hydroboration of 1, 3-Butadiene - I. I. Zakharkin and A. I. Kovredov . . . . .	2147 2153
Halogenation of Decaborane (14) in Presence of Aluminum Chloride - L. I. Zakharkin and V. N. Kalinin . . . . .	2154 2160
Phenetole and Anisole Complexes of Triethylaluminum and Bromodiethylaluminum - V. M. Mardykin, P. N. Gaponik, and V. K. Saevich . . . . .	2156 2162
Alkylation of Tricarbonylcyclopentadienylmanganese with Olefins - Ya. M. Paushkin, T. P. Vishnyakova, V. A. Zaitsev, and I. D. Kurasheva . . . . .	2159 2164
Infrared Absorption Spectra of p-(Trimethylsilyl)benzaldehyde, p-t-Butylbenzaldehyde, and Benzaldehyde - Ya. I. Ryskin, N. E. Glushkova, and N. P. Kharitonov . . . .	2161 2166
Reactions of Hydride Silane with C <sub>5</sub> -Alkenes in Presence of Iron Pentacarbonyl - E. Ts. Chukovskaya, N. A. Kuz'mina, and M. I. Rozhkova . . . . .	2165 2170
Condensation of Cyclopentadienyltrimethylsilane with Nitro Olefins - G. A. Shvekhgeimer and A. P. Kryuchkova . . . . .	2170 2176

z (Contd)

Available from Consultants Bureau

Halogenation of Aromatic Silanes, XVIII. Halogenation of Trimethylphenylsilane -G. V. Motsarev, T. T. Tarasova, and V. R. Rozenberg .....	2172	2177
Halogenation of Aromatic Silanes, XIX. Preparation of Chloro and Bromo Derivatives of Trifluorophenylsilane-G. V. Motsarev, G. N. Mashkova, and V. R. Rozenberg.	2174	2179
Halogenation of Aromatic Silanes, XX. Preparation and Properties of Chloro Derivatives of Dichloromethylphenylsilane Containing Chlorine Atoms in the Methyl Group and in the Aromatic Nucleus-G. V. Motsarev, V. R. Rozenberg, + and T. T. Tarasova .....	2176	2181
Monoorganosilanes XI. Some Properties of (1-Methylallyl)Silane and the Effect of Solvents on its Reaction with Trichloroacetic Acid-I. E. Saratov and V. O. Reikhsfel'd .....	2178	2183
Complex Formation of Some Orthosilicic Esters with Tin Tetrachloride -Yu. V. Kolodyazhnyi, O. A. Osipov, and T. B. Chenskaya .....	2183	2189
O, O-Diaryl Hydrogen Phosphorodithioates and bis(Bisaryloxyphosphinothioyl) Disulfides -N. I. Zemlyanskii and L. V. Glushkova .....	2187	2193
The System Tin Tetrachloride-p-nitroanisole-M. Usanovich, E. Pichugina, and N. Pal'shina .....	2189	2194
Thermal Decomposition of [( $\alpha$ , $\alpha$ -Dimethylbenzyl)dioxy]triethyltin-Yu. A. Aleksandrov, B. V. Sul'din, and S. N. Kokurina .....	2192	2198
Preparation of Some Alkoxy and Acyloxy Tin and Lead Compounds-T. G. Brilkina, M. K. Safonova, and N. A. Sokolov .....	2196	2202
Solubility of Thiourea Complex Compounds of Lanthanum, Cerium, Praseodymium, Neodymium, and Samarium Acetates in 0.5 M and 1 M Solutions of Thiourea -V. P. Frontas'ev, Yu. G. Sakharova, and N. N. Sakharova .....	2200	2206
Acidic Properties of Ternary Phosphorus-Chromium-Molybdenum Heteropoly Compounds-L. I. Lebedeva and Kam Kyung .....	2203	2209
Complex Compounds of Cerium and Praseodymium with Unsaturated Amines -S. N. Avakyan and S. S. Apyan .....	2207	2213
<b>LETTERS TO THE EDITOR</b>		
Reactions of Phosphorisocyanatidous and Phosphorodiisocyanatidous Esters with Alkyl Halides, N-Chloro Compounds, and Azides-G. I. Derkach, E. S. Gubnitskaya, M. V. Kolotilo, and A. G. Matyusha .....	2210	2215
Relation between the Association Constants and Extinction Coefficients of Tetrinitromethane Complexes of Unsaturated Compounds-V. A. Gorodyskii ..	2212	2217
Relative Reactivities of Barrene and Neobarene in Electrophilic Substitution Reactions -L. I. Zakharkin and V. N. Kalinin .....	2213	2218
Bi-m-Barene-V. I. Stanko and A. I. Klimova .....	2214	2219
Alcoholysis of Uridine Cyclic 2', 3'-Phosphate by Uridylic Acid in Presence of Pancreatic Ribonuclease-N. S. Tikhomirova-Sidorova, G. E. Ustyuzhanin, and E. M. Kogan ..	2215	2219
Synthesis of Peptides with the Aid of Activating Resins-L. Yu. Sklyarov, V. I. Gorbunov, and L. A. Shchukina .....	2217	2220
Synthesis of (Pentafluorophenyl)Silanes-A. L. Klebanskii, Yu. A. Yuzhelevskii, E. G. Kagan, and A. V. Kharlamova .....	2219	2222
Reaction of N, N-Dialkyl-P-methylphosphonamidic Chlorides with Benzohydrazide -A. F. Grapov, N. N. Mel'nikov, S. L. Portnova, and L. V. Razvodovskaya .....	2220	2222

(Contd)

Available from Consultants Bureau

ZHURNAL OБSHCHEL KHMII  
Vol 36, No. 12, Dec 1966

INDEX

Author Index . . . . .	2223
Table of Contents . . . . .	2231

The Russian press date (podpisano k pechati) of this issue was 12/9/1966.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau

JOURNAL OF  
**ORGANIC CHEMISTRY**  
of the USSR

A translation of *Zhurnal Organicheskoi Khimii*

Volume 2, Number 12

December, 1966

**CONTENTS**

Engl./Russ.

Reaction of Phenylethynylketone with Azide Ion in Various Mediums—A. N. Nesmeyanov and M. I. Rybinskaya . . . . .	2041 2081
Electrophilic Substitution on the Aromatic Carbon Atom. V. Effect of the Medium on the Protolysis of Phenyl Mercuric Bromide—I. P. Beletskaya, A. E. Myshkin, and O. A. Reutov . . . . .	2046 2086
Polarography of Organomercury Compounds. Di( $\alpha$ -carboethoxybenzyl)mercury—I. P. Beletskaya, K. P. Butin, and O. A. Reutov . . . . .	2053 2094
Oxidation of the Chlorethylenes. III. Photochemical Oxidative Decomposition of Di- and Trichloracetyl Chloride and Its Influence on the Oxidation of Tri- and Tetrachlorethylene—B. G. Yasnitskii, E. B. Dol'berg, and G. I. Kovalenko . . . . .	2060 2101
Kinetics and Mechanism of Reaction of Amines with Ethylenechlorohydrin and Ethylene Oxide in the Presence of Hydrogen Chloride—Ya. K. Plyuchinskii, N. N. Lebedev, and M. M. Smirnova . . . . .	2067 2108
Investigations in the Field of Amines and Ammonium Compounds. XLIII. A Cyclopent-2-enyl Group Rearrangement—Elimination Reaction—A. T. Babayan, M. G. Indzhikyan, and G. B. Bagdasaryan . . . . .	2073 2115
Investigation in the Field of Amines and Ammonium Compounds. XLIV. Alkaline Cleavage of Quaternary Ammonium Salts Containing the 4-Hydroxybutyne-2-yl of 4-Chlorobutyne-2-yl Group—A. T. Babayan, Zh. G. Gegelyan, and M. G. Indzhikyan . . . . .	2075 2117
Investigation in the Field of Amines and Ammonium Compounds. XLVI. Alkaline Cleavage of Quaternary Ammonium Salts Containing 2,3-Dichloro-3-methylbutyl or 2-Chloro-3-methylbutene-2-yl Groups—A. T. Babayan, M. G. Indzhikyan, A. A. Grigoryan, and L. Kh. Gamburyan . . . . .	2079 2122
1,4-Dibromo-2,3-epoxybutane—M. S. Malinovskii, V. G. Dryuk, A. G. Yudasina, and N. N. Maksimenko . . . . .	2086 2129
Reaction of $\beta$ -Bromo- $\beta$ -nitroalkenes with Nitroalkanes—N. I. Aboskalova, A. S. Polyanekaya, V. V. Perekalin, N. K. Golubkova, and T. Ya. Paperno . . . . .	2090 2132
Polyfunctional Vinyl Ethers. III. Vinyl Ethers of $\gamma$ -Acetylenic Alcohols—V. M. Vlasov, G. G. Balezina, and E. I. Kositayna . . . . .	2095 2137
Condensation of 3-Ethyl-3,4-epoxy-1-pentyne with Ketones in Acid and Alkaline Media—M. S. Malinovskii, A. G. Yudasina, T. S. Skrodskaya, and V. G. Larionova . . . . .	2100 2142
Synthesis and Transformations of Unsaturated Organic Compounds. XXXIV. Synthesis and Transformations of Branched Tertiary Acetylenic Hydroxy Ethers—I. A. Shikhiev, S. A. Rzaeva, and B. M. Guseinzade . . . . .	2105 2148

(Contd)

Available from THE Consultants Bureau

Synthesis and Transformations of Oxygen-Containing Unsaturated Organic and Organosilicon Compounds. XXXVI. Synthesis and Transformations of Some Hydroxy Ethers of the Acetylenic Series—I. A. Shikhiev, I. A. Aslanov, S. Sh. Verdieva, and E. M. Isaev . . . . .	2108	2150
Cyclopropanes and Cyclobutanes. XLVII. Acetylation of Stereoisomeric 1,2-Diphenylcyclopropanes—Yu. S. Shabarov, E. S. Efremov, V. K. Potapov, and R. Ya. Levina . . . . .	2111	2154
Synthesis and Determination of Configuration of cis-1-Iodomethyl-2-methylcyclobutane—V. P. Gol'mov and Z. P. Malevannaya . . . . .	2116	2159
Isomerization of Polymethylene Hydrocarbons under the Influence of Aluminum Chloride. XXVIII. Isomerization of Spiro[4.4]nonane—M. B. Turova-Polyak, I. S. Sosnina, N. A. Belikova, and A. F. Plate . . . . .	2119	2162
Synthesis of Semioxamazones and Their Derivatives—S. D. Moshchitskii, L. S. Sologub, A. F. Pavlenko, and V. P. Akkerman . . . . .	2121	2164
Reductive Dimerization of Salicylaldehyde and Aromatic Ketones during Their Indirect Electroreduction—L. N. Lavrishcheva, T. A. Volodina, and V. N. Belov . . . . .	2124	2167
Polymethylation of 2-Substituted Dimedones—R. E. Valter, A. E. Kipinya, and G. Ya. Vanag . . . . .	2129	2172
Acyl Peroxides. XV. Synthesis of Diacyl Peroxides by the Oxidation of Aldehydes in the Presence of Benzoic Anhydride—Yu. A. Ol'dekop, G. S. Bylina, L. K. Burykina, and G. S. Kislyak . . . . .	2133	2175
Synthetic Studies in the Macrocyclic Compound Series. IV. A New Cyclooctanone Synthesis—A. D. Treboganova, R. S. Astakhova, A. A. Kraevskii, and N. A. Preobrazhenskii . . . . .	2136	2178
Studies in the Lipid Field. XLIV. New Means of Synthesizing 1-Alkenyl Alkyl Ethers by the Wittig Reaction—S. P. Ivashchenko, I. K. Sarycheva, and N. A. Preobrazhenskii . . . . .	2139	2181
Studies in the Lipid Field. XLV. Stereospecific Synthesis of DL-erythro-Dihydromorphin-gosine—E. N. Zvonkova, K. I. Éller, V. I. Tsetlin, V. I. Mitsner, and N. A. Preobrazhenskii . . . . .	2141	2184
Organic Insecticides and Fungicides. CVI. Synthesis of Some Guanidine Derivatives—L. A. Kiselev, V. E. Ruchkin, N. M. Osipova, N. N. Mel'nikov, and K. D. Shvetsova-Shilovskaya . . . . .	2144	2186
Phosphoric and Thiophosphoric Esters containing Heterocyclic Radicals. VIII. Reaction of Acid Chlorides of Phosphoric Acids with $\beta$ -Aminopyridine and $\alpha$ -Aminoquinoline—B. A. Arbuzov, V. M. Zoroastrova, and S. P. Shcherbak . . . . .	2148	2190
Reduction of Acid Chlorides to Aldehydes with Sodium Tri-tert-butoxyaluminum Hydride—L. I. Zakharkin, D. N. Maslin, and V. V. Gavrilenko . . . . .	2153	2197
Synthesis of Anesthetics on the Basis of $\beta$ -Diketones. II. Dialkylaminoalkyl Esters of (2-Arylindandione-1,3-yl-2)-acetic and propionic Acids—R. É. Valter . . . . .	2157	2201
Transformations of 3,4-Dihydro-3,4,5,9,10-pentabromoacenaphthene—G. P. Petrenko and V. G. Usachenko . . . . .	2162	2206
Replacement of Halogen in Azo Compounds. XX. Ionization Constants of Derivatives of 4-Benzeneazo-1-(p-sulfophenyl)-3-methylpyrazolone-5 and the Stability of Their Copper Compounds—B. I. Stepanov and B. A. Korolev . . . . .	2165	2209
Replacement of Halogen in Azo Compounds. XXI. The Mobility of Chlorine in Some Derivatives of Benzeneazonaphthalene and Benzeneazopyrazolone—R. A. Korolev and B. I. Stepanov . . . . .	2168	2212
Replacement of Halogen in Azo Compounds. XXII. 2-Alkoxyl-6-chlorobenzene-(1-azo-1')-naphthols-2—M. A. Andreeva and B. I. Stepanov . . . . .	2171	2214
Chemistry of Free Radicals of the Hydrazine Series. XL. The Reactivity of Hydrazyl Radicals containing Benzazole Residues at the $\alpha$ -Nitrogen Atom—L. A. Petrov and R. O. Matevosyan . . . . .	2173	2216

(Contd)

Available from Consultants Bureau

(continued)

Engl./Russ.

Anthraquinone Derivatives. XIII. 2-n-Alkylanthraquinones—N. S. Dokunikhin and L. V. Galitayna . . . . .	2176	2219
Investigations in the Series of Pyran, Its Analogs, and Related Compounds. XX. Synthesis of Amino Derivatives on the Basis of the Neber Rearrangement —N. V. Dudykina and V. A. Zagorevskii . . . . .	2179	2222
Isoxazolidizidines. III. Structure and Spatial Directivity of the 1,3-Dipolar Cycloaddition Reaction of Nitrone Ethers—V. A. Taratakovskii, A. A. Onishchchenko, V. A. Smirnyadin, and S. S. Novikov . . . . .	2183	2225
Studies in the Field of Pyran, Its Analogs, and Related Compounds. XIX. Tosylation of Esculetins—V. A. Zagorevskii, Z. D. Kirsanova, and D. A. Zykov . . . . .	2189	2231
Electron Exchange Interactions in Free Imine Oxide Biradicals of the Biphenyl Series —É. G. Rozantsev, V. A. Golubev, V. I. Suskina, and M. V. Neiman . . . . .	2192	2235
Structure and Reactions of Aromatic Diazonium Compounds. XXXVI. Reactions of Bis-diazonium Salts Forming Analogs and Derivatives of Biphenyl-bis- diazonium Compounds—B. A. Porai-Koshits and A. B. Tomchin . . . . .	2195	2238
Allyl Phenyl Selenide and Its Prototypic Isomerization—E. G. Kataev, L. M. Kataeva, and G. A. Chmutova . . . . .	2200	2244
Possible Quantitative Combination of Radicals Attached to a Central Atom of an Element. V. Compounds Containing Carbon as the Central Atom—I. I. Lapkin and I. S. Rogozhnikova . . . . .	2204	2248
Synthesis of Derivatives of N-Methylpyridone from Sodionitromalonaldehyde —S. M. Kvitko, V. V. Perekalin, and N. V. Buival . . . . .	2209	2253

LETTERS TO THE EDITOR

New Information on the Mechanism of the Reaction of Diphenyldiazomethane with Silicoolefins—I. A. D'yakonov, I. V. Repinskaya, and G. V. Golodnikov. . . . .	2212	2256
Polyfunctional Vinyl Ethers—Substituted Vinyl Ethers of Acetylenic Alcohols —M. F. Shostakovskii, V. M. Vlasov, and G. G. Balezina . . . . .	2213	2257
Rearrangement of $\gamma$ , $\delta$ -Epoxyalkylacetooacetic Ester into a Substituted Dihydropyran —B. A. Ershov, Z. G. Leus, V. I. Ivanova, and T. I. Temnikova . . . . .	2214	2257
Rearrangement of $\gamma$ , $\delta$ -Epoxyketones into 5- $\alpha$ -Hydroxy-4,5-dihydrofurans —B. A. Ershov, T. P. Zubova, V. I. Ivanova, O. A. Ermakov, and T. I. Temnikova	2215	2258
Photochemical Decomposition of $\alpha$ -Cyano- $\alpha$ , $\beta$ -diphenylethylene Oxide—I. P. Stepanov, O. A. Ikonopistseva, and T. I. Temnikova . . . . .	2216	2259
Formation of Epoxyacids in the Oxidation of Unsaturated Acids with Potassium Permanganate—N. P. Bulatovskii . . . . .	2218	2260
Reaction of Benzoyl Chloride with Methyl Dithioacetate in the Presence of Triethylamine—Yu. G. Gololobov and T. F. Dmitrieva . . . . .	2219	2260
Convenient Method for the Preparation of Pyridinium Cyclopentadienylides —N. K. Baranetskaya, D. N. Kursanov, and V. N. Setkina . . . . .	2220	2261
New Synthesis of p-Vinylstyrene Oxide—G. M. Pogosyan and S. G. Matsyan . . . . .	2221	2262
Arylaliphatic $\alpha$ -Methene-1,5-diketones—G. V. Pavel' and M. N. Tilichenko . . . . .	2222	2262
9, 10-Addition of Ethoxycarbonylcarbene to Anthracene—T. V. Domareva-Mandel'shtam, I. A. D'yakonov, and L. D. Kristol . . . . .	2223	2263

(Contd)

Available from Consultants Bureau

ZHURNAL ORGANICHESKOI KHMII  
Vol 2, No. 12, Dec 1966

(continued)

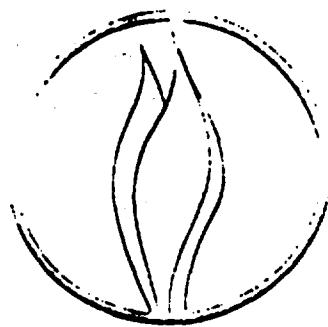
Engl./Russ.

INDEX

Author Index.....	2227
Table of Contents .....	2235

The Russian press date (podpisano k pechati) of this issue was 12/13/1966.  
Publication therefore did not occur prior to this date, but must be assumed  
to have taken place reasonably soon thereafter.

Available from Consultants Bureau



# Journal of Applied Mechanics and Technical Physics

The Faraday Press cover-to-cover translation  
of *Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi Fiziki*

## Contents

Number 3 • May - June 1965

	Russian page	English page
Nonlinear Fluctuations in a Plasma with Coulomb Interaction, N. P. Giorgaize and V. P. Slin, . . . . .	3	1
The Influence of Viscosity Anisotropy on the Plane-Parallel Flow of an Ionized Medium in a Coplanar Magnetic Field, E. G. Sakhnovskii, . . . . .	11	9
The Viscosity of a Plasma in a Strong Magnetic Field, Yu. M. Aleyev, . . . . .	19	17
Effect of Hall Currents on the Flow of a Conducting Gas at High Flow Velocities, G. M. Baum-Zelikovich, . . . . .	27	25
The Hall Effect in an Electrically Conducting Fluid for Variable Magnetic Field and High Magnetic Reynolds Numbers, K. I. Kim . . . . .	35	33
Some Restraints on the Energy and Spectrum of Turbulent Fluid Motion, A. A. Galeev, . . . . .	39	35
On the Theory of Stationary Velocity of Propagation of an Exothermic Reaction Front in a Condensed Medium, S. S. Novikov and Yu. S. Ryazantsev, . . . . .	45	43
One-Dimensional Statistical Models, B. N. Baranov and I. P. Pavlotskii, . . . . .	49	47
On Some New Solutions Obtainable by Means of Invariant Transformations, V. A. Syrovov, . . . . .	56	54
The Reflection of Plane Nonstationary Waves from an Arbitrary Inhomogeneous Half-Space. The Acoustic Case, E. V. Nikol'skii, . . . . .	63	61
Neutralization of a Spherically Diverging Current of Charged Particles, V. A. Levin, . . . . .	68	66
Energy Exchange on Collision of Molecules with a Solid Wall, V. B. Leonas, . . . . .	71	68
Isotropic Corrections to the Maxwell Distribution Functions in a Plasma and Rate of Energy Exchange, G. S. Bisnovatyi-Kogan, . . . . .	74	71

(Contd)

## Faraday Advisory Editors

R. C. Cess  
State University of New York  
at Stony Brook  
T. F. Irvine, Jr.  
State University of New York  
at Stony Brook

Single Issue: \$35

Annual Subscription: \$150

© 1967 by The Faraday Press, Inc.  
All rights reserved. This publication or parts thereof may not  
be reproduced in any form without permission of the publisher.

# The Faraday Press, Inc.

Available from The Faraday Press, Inc.

24 FIFTH AVENUE, NEW YORK, N. Y. 10011

ZHURNAL PRIKLADNOI MEKHANIKI I TEKHNICHESKOI FIZIKI  
No. 3, May-June 65

	Russian page	English page
Study of the Structure of a Supersonic Plasma Jet and its Mechanism of Formation. L. I. Grechikhin and L. Ya. Min'ko . . . . .	77	53
Rotation of Electrode Segments and Properties of an Arc Column in a Plasma Generator with Vortex Gas Stabilization. I. I. Kolonina and V. Ya. Smolyakov . . .	80	56
Investigation of the System of Equations for a Compressible Laminar Boundary Layer in the Neighborhood of a Stagnation Line. B. I. Reznikov and Yu. N. Smyslov . . . . .	85	59
Calculation of the Boundary Layer on an Arbitrary Axisymmetric Surface Rotating in a Still Medium. L. A. Dorfman . . . . .	89	62
Drag-Reducing Effect of Solutions of Some High-Molecular Compounds in Turbulent Flow Past Bodies. G. I. Barenblatt, I. G. Bulina, and V. P. Myasnikov . . .	95	66
Equations of Motion of a Thin Layer of Fluid on the Surface of a Rotating Body of Revolution. O. F. Vasil'ev and N. S. Khapilova . . . . .	97	68
Application of Spark Photography to the Investigation of Pulsed High-Pressure Jets. V. P. Borodin and B. V. Voitsekhovskii . . . . .	100	70
Boundary Effect on Cavitating Flow Past a Cylinder. K. K. Shal'nev . . . . .	103	73
Sorption in a Plane-Radial Filtration Flow. M. I. Shvidler . . . . .	109	77
Generalization of Experimental Data on Flow Friction in Surface Boiling. A. P. Ornatskii . . . . .	113	80
Specific Heat of Titanium Close to the Phase Transition Point. G. G. Zaitseva and Ya. A. Kraftmakher . . . . .	117	83
Behavior of Cadmium Whiskers Close to the Melting Point. K. K. Ziling . . . . .	118	84
Momentum Calculations in Crater Formation and the Modeling of Impact Processes. B. A. Arkhipov and Yu. S. Stepanov . . . . .	120	86
Creep of Technical Copper Under Combined Loading. V. S. Namestnikov . . . . .	127	92
Nature of the Strength and Certain Growth Characteristics of Mixed Metal Whiskers. A. V. Serebryakov . . . . .	131	95
Attenuation Elastic Waves in Rocks in the Region of Low-Intensity Oscillations. V. S. Yamshchikov . . . . .	134	98

Available from The Faraday Press, Inc.

# Soviet Physics

# TECHNICAL

# PHYSICS

A Translation of "Zhurnal Tekhnicheskoi Fiziki"

(Russian Original Vol. 37, No. 6, pp. 1001-1180, June, 1967)

Vol. 12, No. 6, pp. 723-856

December, 1967

## CONTENTS

		RUSS. PAGE	PAGE
Relativistic Virial Theorem for a System of Charged Particles Moving in an External Electromagnetic Field. N. B. Rubin . . . . .	(T)	723	1001
Effect of Inhomogeneous Hydrodynamic Motion and Thermal Velocities on the Propagation of Magnetohydrodynamic Waves. I. È. Gurevich and A. S. Grebinskii . . . . .	(T)	726	1006
Thin Uniformly Shielding Ferromagnetic Shells. S. V. Zhukov . . . . .	(T)	735	1021
Magnetic Field of Currents Flowing in Media Separated by a Spheroidal Surface. D. B. Gurvich and E. A. Svyadoshch . . . . .	(T)	738	1025
Electron-Optical Parameters of Two-Electrode Cylindrical Immersion Lenses. I. G. Glikman, V. M. Kel'man, and E. M. Yakushev . . . . .	(T)	740	1028
Optimum Magnification Ratio of an Electrostatic Focusing System for Various Methods of Electron-Beam Deflection. A. E. Gershberg and Z. I. Kuz'minova . . . . .	(T)	745	1035
Mechanical Effects in the Interaction between Pulsed Electromagnetic Radiation and a Metal. V. B. Braginskii, I. I. Minakova, and V. N. Rudenko . . . . .	(E/T)	753	1045
Plasma Reflection by a Linearly Increasing Transverse Magnetic Field. A. M. Kovalev and N. A. Khizhnyak . . . . .	(T)	758	1052
Difference-Frequency Multiplication and Detection in a Beam-Plasma System. N. Ya. Kotsarenko and A. M. Fedorchenko . . . . .	(T)	762	1057
Variation of the Floating Potential of a Langmuir Probe with an Alternating Voltage. V. A. Godyak, A. N. Ivanov, and A. A. Kuzovnikov . . . . .	(T/E)	766	1063
Determination of Phase Space Volume in a Storage Ring or Cyclic Accelerator by Injection of the Particles through a Foil. M. I. Khelfets . . . . .	(T)	770	1068
Mass Composition of High-Energy Ions Bombarding the Cathode in an Anomalous Glow Discharge. A. V. Bondarenko and M. A. Lebedev . . . . .	(E)	774	1074
Optimum Modes of Thermionic Converters for Arbitrary Collision Frequencies. I. S. A. Maev, I. P. Stakhanov, Yu. K. Gus'kov, V. I. Zyukov, and V. P. Pashchenko . . . . .	(T)	778	1079

(Contd)

Copyright © 1967 by the American Institute of Physics

Available from Am Inst of Phys, Inc.

	RUSS. PAGE	PAGE
<b>Optimum Modes of Thermionic Converters for Arbitrary Collision Frequencies.</b> <u>H. Yu. K. Gus'kov, V. I. Zyukov, S. A. Maev, V. P. Pashchenko, and</u> <u>I. P. Sinakhanov . . . . .</u>	(T) 786	1090
<b>Operation of a Cryogenic Pump in the Free-Molecular Mode.</b> <u>N. N. Bagrov,</u> <u>A. M. Butenko, A. A. Guslyakov, I. O. Kulik, and V. F. Udovenko . . . . .</u>	(T/E) 795	1105
<b>Longitudinal Separation of a Gas Mixture in Glow Discharge.</b> <u>Yu. A. Pekar . . . . .</u>	(T) 800	1112
<b>Shape of a Discharge in a Gas Cavity Bounded by a Dielectric.</b> <u>B. D. Vakser</u> <u>and K. N. Chubuzova . . . . .</u>	(E) 806	1118
<b>X-Ray Scattering from Crystals with a Temperature Gradient. I.</b> <u>P. A. Bezirganyan . . . . .</u>	(T) 807	1121
<b>Plasma-Optical Effects in Lasers at 0.63, 1.15, and 3.39 <math>\mu</math>.</b> <u>L. F. Vellikok,</u> <u>A. É. Fotiadi, and S. A. Fridrikhov . . . . .</u>	(E) 811	1127
<b>Spectrum of CW Laser with Confocal Resonator.</b> <u>I. M. Belousova,</u> <u>O. B. Danilov, and V. V. Lyubimov . . . . .</u>	(E/T) 817	1134
<b>Desorption of Ions by Slow Electrons from Adsorbed Layers on Copper</b> <b>Surfaces.</b> <u>M. I. Datsiev and N. I. Ionov . . . . .</u>	(E/T) 821	1140
<b>Redistribution of Electron and Ion Density in a Plasma in a Strong Microwave</b> <b>Field.</b> <u>N. Ya. Kotsarenko, S. M. Levitskii, A. M. Fedorchenko, and</u> <u>V. F. Virke . . . . .</u>	(T/E) 827	1148
<b>BRIEF COMMUNICATIONS</b>		
<b>Probe Investigation of a Low-Voltage Cesium Arc between Two Emitting</b> <b>Electrodes.</b> <u>G. A. Dyuzhev, A. M. Martsinovskii, B. Ya. Moizhes,</u> <u>G. E. Pikus, and V. G. Yur'ev . . . . .</u>	(E) 832	1155
<b>Excitation of a Rectangular Waveguide by a Homogeneous System of Charges</b> <b>along the Waveguide Axis.</b> <u>O. G. Vendik . . . . .</u>	(T) 835	1157
<b>Plasma Heating in a Strong Magnetic Field by Laser Radiation.</b> <u>P. I. Shkuropat</u> <u>and G. A. Shneerson . . . . .</u>	(T) 838	1161
<b>Reducing the Angular Divergence of Radiation of a Single-Pulse Laser.</b> <u>Yu. A. Anan'ev and V. D. Volosov . . . . .</u>	(E) 841	1165
<b>Effect of an Axial Magnetic Field on the Operation of a Pulsed He-Ne Laser.</b> <u>T. M. Perchanok, S. V. Pechurina, and S. A. Fridrikhov . . . . .</u>	(E) 843	1166
<b>Similarity between Physical Processes in a Pulsed Discharge and in the Effect</b> <b>of Laser Radiation on a Metal.</b> <u>L. I. Grechikhin and L. Ya. Min'ko . . . . .</u>	(E) 846	1169
<b>LETTERS TO THE EDITOR</b>		
<b>Rate of Ionization in an Argon-Ion Laser.</b> <u>V. F. Kitaeva, Yu. I. Osipov,</u> <u>N. N. Sobolev, and P. L. Rubin . . . . .</u>	(E/T) 850	1173
<b>Relativistic Shift in Natural Resonator Frequencies.</b> <u>A. M. Glutsyuk . . . . .</u>	(T) 853	1176
<b>Quasilinear Theory for Aperiodic Instabilities.</b> <u>E. A. Perel'shtein . . . . .</u>	(T) 854	1177

Available from Am Inst of Phys, Inc.

INDEX TO AUTHORS

This index does not include authors listed in the cover-to-cover tables of contents.

- A -

Abd al-Raziq, Husayn	23
Abdullabekov, A.	72
Abdulov, N. I.	61
Abolin, Ya. T.	31
Abramovskiy, E. R.	82
Abrarov, A. A.	43
Abshayev, M. T.	32
Abugov, Yu. O.	68
Adenstedt, H.	85
Afrutkin, Sh.	8
Agafonov, V. D.	42
Aganin, M.	8
Akesenova, A. N.	71
Akhundov, T. S.	50
Akimov, B. N.	7
Akimov, V. N.	6
Akopyan, E. Sh.	42
Albani, Dina	21
Albrecht, Degenhard	12
al-Din, Ahmad Baha	24
Aleksandrov, M.	57
Alekseyev, A. A.	53
Alekseyev, L. A.	73
Alekseyev-Shemyakin, V. P.	51
Alekseyeva, R. E.	34
Alexandru, D.	15
Alfinger, Carlos	28
Alikhanov, E.	2
Al-Sha'b, Nidal	24
Altamirano, Carlos	29
Alyamovskiy, I. V.	56
Anan'in, V. V.	44
Anan'yev, M. G.	33
Andjelic, Luka	17
Andranov, Yu. G.	51
Andreyeva, A. G.	44
Andriyashev, A. P.	32
Andronov, M.	87
Andrusenko, P. I.	50
Andryanov, V.	10
Anfimov, N. A.	81
Angenheister, G.	55
Anis, Muhammad	24
Anokhin, S. B.	83

Anshelm, Jan	21
Antonov, B. N.	31
Anwand, K.	12
Apanasenko, Z. I.	33
Arens, W.	87
Arlashchenko, N. I.	43
Arnold, Kurt	54
Artamonov, A.	2
Artemov, N. M.	46
Artobolovskiy, I. I.	12
Astakhov, A. A.	72
Atoyan, K. M.	69
Aumont, Charles	22
Auslender, V. L.	78
Avakyan, V. M.	49
Avakyan, Z. A.	37
Averbukh, V. I.	69
Avila, S.	55
Avni-Segre, Dan	22
Avramchenko, R. F.	87
Azhazha, V. G.	76

- B -

Babanovskiy, I. V.	11
Babonov, Yu. N.	57
Bahr, W.	51
Baibulatov, R. B.	55
Bakumenko, S. P.	60
Balakshin, O. B.	69
Balashova, N. N.	84
Balchunas, J. D.	40
Baldina, E. P.	42
Baljinnyam, B.	26
Baluchi, Henryk	14
Balukova, V. D.	79
Bannikov, A. G.	38
Barakayev, Kh. F.	56
Baranov, A. V.	61
Baranov, Yu. B.	61
Baranovskiy, M. A.	62
Baranovskiy, R.	70
Barbacioru, C.	15
Barbashin, M.	4
Barinov, N.	8
Barklon, L. I.	68
Baron, C.	45

Barsel, A. B.	70	Bonch-Bruevich, A. M.	50
Bartha, Ferenc	13	Bonnier, J. M.	51
Barybin, V.	36	Borbenyi, Ervin	13
Baskin, A. I.	8	Borenko, A. S.	72
Basmut, S. S.	52	Borishpolets, Z. I.	34
Basov, N. G.	82	Borisov, A. A.	53
Batal'yants, K. A.	38	Borisov, N. N.	78
Bauer, O. N.	34	Borisov, Ye. I.	3
Baybakov, G. R.	76	Borisova, O. M.	61
Bayer, Farbenfabriken	85	Borowski, K.	65
Bayevskiy, R. M.	33	Bossy, L. G.	32
Bazhenov, Yu. M.	79	Boyer, Albert	18
Becher, H. J.	80	Brainin, I. Ye.	60
Becker, Klaus	17	Brashnikova, M. G.	34
Beil, Gerhard	12	Braume, W.	16
Bejan, Dumitru	15	Brazhnikova, M. G.	34
Belevich, R. R.	53	Breido, I. I.	76
Belkin, A. N.	36	Brodskaya, S.	54
Belkin, S. I.	72	Brodskiy, R. A.	34
Belmustakov, T.	74	Brovman, Ye. G.	60
Belous, B. P.	59	Bruch, J.	67
Belov, A. F.	62	Bryanskiy, G. A.	11
Belova, I. P.	34	Budnikov, V. I.	59
Belovertsev, V. I.	10	Bugakov, I. I.	70
Belvaux, Y.	84	Bugayeva, E. I.	44
Belyayev, Yu. I.	54	Burdzinski, Z.	75
Belyayeva, Ye.	9	Bureau, M. G.	27, 42
Benger, B.	8	Burka, M.	9
Beramak, Bretislav	55	Burmester, V.	6
Berenyi, L.	14	Bursa, M.	54
Bereskin, V. G.	84	Bushuyev, V.	5
Berezov, B. M.	15	Buyanov, P. V.	36
Berg, H. V.	19	Bykhovskiy, B. Ye.	38
Bering, B. P.	49	Bykhovskiy, Yu. I.	61
Berman, L. D.	73	Bykov, V. P.	39, 40
Bernard, R.	45		
Bettac, W.	54		
Bezmenov, V. M.	87		
Biberman, L. M.	80		
Bieger, W.	86		
Biester, E.	54		
Bilinkin, N. P.	1		
Birling, Mihaly	13		
Bivas, R.	85		
Bobrova, Z. V.	62		
Bocharov, A. F.	44		
Bochvar, G. A.	59		
Boetz, V.	65		
Bogachuk-Kazachuk, O. A.	81		
Bogorodskiy, A. F.	32		
Bogoyavlenskaya, D. B.	44		
Bol'shakov, G. F.	83		
Bol'shov, D.	9		
Bomar, Miroslav	30		
		- C -	
		Caballero, Irma	31
		Cabe, F. L.	55
		Camera, Condetto	
		Nenekhaly	23
		Catarivas, David	22
		Celikovsky, K.	74
		Chadayev, Ya.	2
		Chang Pyong-gi,	25
		Chekalin, V. V.	82
		Chen Tan Chih,	87
		Chepovskaya, O. I.	32
		Chepurnov, V. N.	82
		Chernous'ko, F. L.	81
		Chernov, I.	1
		Chernyakova, E. G.	6
		Chernyavskiy, G.	5, 6

- C -

Chichvarin, V. A.	8
Chikova, V. M.	10
Chojnicki, Tadeusz	55
Chong Kwan-yong,	26
Chou T'ien-ch'ih	27
Christiansen, A.	45
Chubarina, E. V.	56
Chufarov, G. I.	49
Chukhriyenko, O. P.	33
Chumak, M. G.	79
Chumak, Z. V.	9
Chumakov, M. P.	44
Chumakov, N. M.	52
Chuvikovskiy, G. S.	73
Chvetzoff, W.	80
Cicicopol, Cornel	14
Conrad, D.	18
Constant, A.	63
Corsepius, H.	86
Corti, A.	47
Courtaud, F.	58
Crigorenko, A.	1
Cubr, Veroslav	12

- D -

Dabrowska, R.	49
Dakhia, M.	45
Damba, J.	26
Danchenko, A.	8
Danilov, Yu. A.	62
Danilova, E. N.	38, 39
Daniulite, G.	41
Daniulite, G. P.	41
Dawidowicz, W.	17
de Btancion,	21
Deksnis, V. P.	12
Delacroix, P.	42
Delesard, S.	64
Derbenev, Ya. S.	78
Desestret, A.	64
de Souza, R. P.	68
Detesan, A.	15
Dethloff, Kurt	33
Deyneko, O. A.	11
de Yturriaga y dou, Fernando Maria	76
Dianov, G. P.	30
Dibner, V. D.	72
Dich, S. L.	61
Dickens, P.	64
Didovich, B. A.	37
Dietrich, H.	66
Dikanskiy, N. S	78

Dikomey, K.	18
Djordjevic, Bogoljub	17
Dlubek, S.	66
Dobkowski, Z.	80
Dokusova, O. K.	35
Dolara, A.	48
Dolgin, I. M.	32
Dombrovskaya, I. N.	68
Dos Santos, Eduardo	22
Draffehn, P.	54
Drossel, P.	19
Druzhinin, V. V.	60
Dubois, F.	80
Dubynina, Ye. I.	41
Duck, W.	13
Dufour, H. M.	54
Dugar, D.	26
Dumitru, T.	15
Dvorzhetskaya, R. P.	11
Dyadechko, G. P.	60
Dyatlov, I. N.	86
Dyatlova, A. I.	34
Dykin, V.	2
Dymshits, V. E.	4
Dyner, Miroslaw	14
Dzhamalova, Z. M.	37

- E -

Egorov, V. S.	7
Eichinger, K.	19
Elicer, Karel	58
El'piner, I. E.	34
Engelmann, W.	66
Epshtein, V. M.	35
Erik, A. P.	4
Eros, Gyula	13
Eroshenko, V. A.	65
Ershov, B. A.	50
Espig, H.	18
Estler, C. J.	33
Etmezdhiyan, A. A.	5
Evseyeva, N. D.	42
Exner, H. E.	64

- F -

Fadeyeva, T. S.	34
Fahimi, H. D.	48
Fal'kovskaya, L.	11
Faludi, Andras	13
Fankhauser, F.	47
Farafonov, V. K.	63
Faraghali, Ahmad	24

Fateyev, A. V.	61	Gay, M.	30
Fatkullin, O. Kh.	62	Gaydarov, M.	69
Favary, Jozsef	55	Geiger, T.	64
Favre, R.	45	Geller, I. M.	3
Fedorinchik, N. S.	37	Genike, A. A.	77
Fedorov, Ye. P.	32	Gershanovich, D. V.	77
Fedorova, O. S.	51	Geselevich, A. M.	33
Fedosov, M. V.	53	Gesolevich, A. N.	33
Fedotova, A.	70	Gest, J.	18
Fedyayev, V. E.	6	Gevkan, I. I.	39
Feklichev, V. G.	81	Geydarov, M.	69
Feltsan, P. V.	79	Gibov, K. M.	50
Feng, Ping-Ch'uan	58	Gill', I. L.	77
Feodos'yev, V. I.	71	Girsa, I. I.	43
Figurnova, N.	11	Gladilin, K. L.	38
Filipchenko, Yu. A.	44	Gladyshev, G. O.	50
Filipovic, Vlastimir	15	Glebovskaya, E. A.	83
Fioptalli, R.	58	Glikman, L. A.	60
Fischer, E. A.	80	Godovikov, N. N.	49
Fischer, H.	19	Godyn, Ye. I.	49
Fischer, R. Chatterjee	65	Gofman, Yu. Ya.	50
Fischmeister, H.	64	Gogish, L. V.	76
Fleishman, N. P.	82	Golba, Stafan	68
Flietner, H.	85	Gol'dberg, L. E.	34
Fomin, Yu. M.	52	Gol'denberg, A.	1
Fominova, V. P.	70	Gol'dfarb, M.	37
Foumentze, J. L.	64	Golinkevich, N. A.	73
Franko, A.	11	Gol'man, I. M.	6
Franze, J.	47	Gol'shteyn, Ye. G.	56
Franzke, C.	46	Golub, I.	79
Freundt, Eberhard	19	Golubov, T. M.	60
Fridman, A. L.	62	Golyanov, V. M.	82
Frolov, A. A.	60	Gongor, D.	26
Fruhstorfer, H.	46	Gonin, G. B.	51
Fugenfirov, M. I.	69	Goppert-Mayer, Maria	85
Fuks, L. B.	57	Gorbach, V. G.	59
Funaki, K.	51, 80	Gorbai, G. M.	36
Furtado, A. H.	28	Gordero, G.	68

- G -

Gafanovich, M. D.	68	Gorokov, L. N.	83
Gaillard, R.	64	Gorshkov, A. M.	73
Galin, L. A.	60	Goryaga, G. I.	83
Galitskiy, I.	11	Goryaynova, Z. S.	43
Gal'perin, M. I.	59	Goryunov, N. S.	5
Gambaryen, L.	37	Goryunov, V. M.	81
Gamus, I. M.	59	Gottschalk, H. J.	54
Gan'kov, A. A.	40, 53	Gotz, G.	18
Gantman, V.	73	Gotz, Gunter	12
Garashina, L. S.	49	Gourisse, Daniel	80
Garces, Roldos Garces	29	Gozulov, S. A.	36
Gasparyan, Yu.	37	Grabovskaya, M. Ya.	43
Gavrilenko, Yu. P.	60	Grabovskiy, P. P.	41
Gavrilov, M. A.	73	Granjon, H.	64
		Grdina, Yu. V.	60

Grebnyuk, G. S.	61	Hille, P.	85
Grechishkin, F.	3	Hirabayashi, H.	67
Gresser, H.	86	Hirokazu Hase,	86
Greze, V. N.	3, 42	Hivert, A.	64
Gribanov, Yu. I.	68	Hix, P.	63
Grigorov, N. G.	78	Hocman, L.	63
Grigor'yev, G. I.	32	Hofmann, E. E.	66
Grigor'yev, Yu. G.	43	Holownia, J.	58
Grishayev, I. O.	83	Holper, R.	63
Gromov, N. K.	8	Holzinger, R.	23
Gronskiy, Ya. I.	55	Hoppner, M.	19
Gross, Bernhard	80	Hoptner, M.	9
Gruniesen, E.	85	Hrynkiewicz, Janusz	14
Gruzdev, V. A.	84	Hugueney, J.	21
Gryadumov, A.	71	Huynh, Phan	28

- I -

Gulyev, Ch.	78	Igielska, J.	58
Gulyayev, B. B.	60	Igolkin, A.	6
Gunther, P.	86	Il'chenko, S.	37
Gurevich, S. G.	38	Il'ichev, E. F.	39
Gurov, Ye.	3	Il'in, Stepan	
Gurovskiy, N. N.	36	Konstantinovich	9
Gurshtein, A. A.	31	Il'inskiy, O. B.	77
Gurstein, A. A.	31	Il'yin, G. P.	33
Gurvich, A. M.	84	Ilyin, O. H.	83
Gurvich, A. V.	83	Il'yin, V.	72
Gusev, M. V.	35	Imshenetskiy, A. A.	42
Gusev, V. K.	10	Imyanitov, I. M.	56
Gusev, V. N.	30	Inzelt, I.	50
Guseva, G. I.	85	Ionas, V. A.	5
Gyunninen, E. M.	82	Ippolitov, Ye. G.	49
- H -		Irzhhevskiy, V. P.	71
Ha Ke Tan,	76	Isakhanov, M. P.	41
Hadj, El	22	Ishi, F.	24
Haglund, L.	9	Ishida, T.	25
Hahn, G.	19	Isnard, Jacques	22
Halownia, J.	58	Ito, J.	25
Hamabe, M.	48	Iudanov, K. I.	53, 77
Hamamori, A.	24	Iuzhakova, V.	39
Hamor, T.	47	Ivanchenko, V. N.	62
Hatarascu, O.	68	Ivanilov, Yu. P.	86
Hauenstein, A.	22	Ivanina, L. I.	34
Haufe, W.	66	Ivankov, V. N.	39
Heidtkampf, R.	16	Ivanov, B. G.	8
Heim, E.	85	Ivanov, M.	5
Heims, K. O.	46	Ivanov, N.	5
Hensen, V.	46	Ivanov, V. I.	50
Hernandez, Gabino	31	Ivanov, V. V.	31
Herrmann, G.	80	Ivanova, A.	7
Hetz, K.	18	Ivasik, V. M.	8, 39
Heyne, Werner	67	Ivlev, V. S.	43
Hill, Eduard	16	Izrailev, F. M.	81

Jacobs, W.	65	Khilov, K. L.	43
Jacquemot, A.	22	Khitrov, L. M.	54, 62
Jaenichen, W.	19	Khodosovtsev, N. M.	5
Jagbaral, N.	27	Khokhlov, I.	30
Jakovljevic, Dj.	17	Kholov, M.	10
Jansa, F.	18	Khomchik, L. M.	79
Jasper, Liselotte	58	Khomutov, D. A.	82
Jaspert, M.	64	Khoroshanskiy, G. M.	73
Jastrzebski, E.	17	Khovkhumova, K.	11
Jensch, A.	55	Khovrenko, P. M.	40
Jesenak, V.	79	Khramov, A. A.	72
Judice, Antonio	55	Kidin, I. N.	60
Jung, J.	16	Kiktenko, V. S.	44
Jung, K.	55	Kil Su-am,	28
Junge, C.	33	Kim Hak U,	25
Jurewiz, E. Ja.	31	Kim Ki-yong,	27
		Kimberger, Fianz	47
		Kimura, A.	67
		Kimura, T.	67
		Kiperman, S.	63
		Kirchoff, H.	19
		Kirpichnikov, V. S.	34
		Kisilenko, B. E.	87
		Kiss, L. Buza	13
		Kivimaki, Erkki	20
		Kizevetter, I. V.	7
		Kleshchev, G. V.	81
		Kleyn, N. I.	8
		Klimov, A. N.	34
		Klumper, A.	47
		Kmetik, P. I.	9
		Knoppler, H.	17
		Koch, A.	20
		Koch, K.	65
		Kocho, V. S.	65
		Koeppen, S.	46
		Kogan, L.	1
		Koike, S.	67
		Koike, Sh.	67
		Koike, Y.	67
		Kokarev, N. I.	76
		Kokorev, A. I.	83
		Kokorev, V. Ya.	4
		Kolesnik, I. G.	6
		Kolesnikov, V.	3
		Koleva, Kelya	16
		Kol'tsov, A. I.	50
		Komarov, D. T.	56
		Komarov, V. C.	12
		Komeyko, A. I.	71
		Komoda, K.	67
		Kondo, K.	75
		Kondo, S.	67

Kabonava, Yu. G.	54		
Kaganas, I. L.	12		
Kalantayevskiy, V.	4		
Kallai, Pal	13		
Kamenskiy, V.	9		
Kamshilov, M. M.	42		
Kamyshnaya, M. S.	40		
Kaneko, T.	48, 49		
Kanno, H.	48		
Kappelmayer, A.	66		
Karavayeva, O. N.	72		
Karger, F.	85		
Karlik, B.	85		
Karpenko, I. M.	8		
Karpov, A. B.	73		
Kashnikov, A. M.	83		
Kataoka, Iwao	86		
Katona, Peter	13		
Katsman, G. M.	61		
Kauhanen, A.	20		
Kautzleben, H.	55		
Kavtaradze, K.	77		
Kawamoto, S.	81		
Keldysh, M.	9		
Kessler, C.	85		
Keulimzhayev, K.	7		
Keyl, W. G.	46		
Khachaturov, T.	4		
Khachkurzov, G. A.	83		
Khalabayev, Ye.	70		
Khalaim, A. F.	11		
Khaldinova, N. A.	42		
Khannanov, T. M.	49		

Konig, P.	64	Krien, G.	13
Konigshofen, H.	20	Kristanov, L.	16
Konnov, Yu. P.	78	Krivenkov, Yu. P.	68
Konoplya, P. I.	10	Krivosheina, N. A.	42
Konovalov, N. P.	4	Krogius, F. V.	43
Konovalov, S. M.	43	Krol', Ts. I.	73
Konovalova, L. V.	52	Kruglova, V. M.	42
Konstantinov, K. G.	5	Kruglyakova, G. I.	53
Konstantinov, V.	77	Krumbiegel, D.	30
Kool', I. V.	32	Krupchatnikov, V. M.	79
Kopecky, Antonin	45	Krykova, I. V.	81
Kopecky, Ladislav	16	Kuan Shan-yuan,	25
Koppendorfer, W.	85	Kubina, H.	19
Kopytov, Yu. V.	59	Kucheruk, V. V.	44
Korshunov, Ye.	2	Kudryavtseva, Ye. N.	41
Korendyasev, M. A.	38	Kulichkov, G. M.	71
Korf, Ya. A.	12	Kulik, I. O.	55
Korinek, Jaroslav	16	Kun, I.	15
Kornet, I.	8	Kundyshev, V. A.	57
Korneyeva, I.	2	Kuprianoff, J.	47
Kornilov, A. N.	84	Kurbatov, I.	11
Korobkina, G. S.	38, 39	Kurnosov, A. M.	63
Korotkov, Yu. L.	5	Kurtinin, I.	1
Korsakov, P. F.	72	Kurtz, H.	18
Korshak, V. V.	50	Kurzhunov, V. V.	82
Kortus, I.	79	Kuthe, E. O.	75
Korzhavin, A. D.	62	Kux, Ernst	16
Kossov, E. G.	38	Kuzhakhmetov, E. I.	53
Kosterin, V. A.	86	Kuzmin, G. G.	31
Kostygov, B. D.	10	Kuzyakin, A. P.	37
Kosyrev, Yu. M.	50	Kvasov, F. I.	62
Kotlyarov, K. A.	62	Kvinikhidze, G. S.	35
Kovalenko, M. P.	84	Kzhivitskiy, A.	68
Kovalenko, N.	2	- L -	
Kovalenko, V. F.	50	Laborit, II.	45
Kovalev, S. A.	36	Laborit, P.	45
Kovrizhnykh, O. M.	78	Lacquaniti, L.	21
Kovsharova, L. A.	37	Lagset, K. E.	20
Kovylin, V. E.	5	Lagunov, L. L.	39
Kozharin, V. S.	32	Landau, L. D.	82
Kozlov, E. S.	58	Langhammer, H. J.	66
Kozlov, V. A.	59	Lanin, I. S.	8
Kozlyakov, V. V.	72	Larikov, L. N.	60
Kozyrskiy, G. Ya.	60	Larionov, L. F.	43
Kramer, E.	19	Lashkarashvili, T.	11
Krasnosel'skiy, M. A.	68	Latal, S.	74
Krasnushkin, P. E.	55	Latash, Yu. V.	60
Krasnyy, Yu. P.	82	Laurischkat, M.	74
Krassovski, G. N.	35	Lavretseyev, M. A.	87
Krauklis, A.	37	Lavrov, G. A.	53
Krauss, Krzysztof	14	Layzhenskya, G. A.	68
Krayevskiy, K.	57		
Krein, M. G.	68		

Lazarenko, I.	77
Lazarev, V.	11
Le Chan Phuong,	28
Le Hong Khe,	28
Lebedinskiy, A. I.	51
Lebedkina, Ye. D.	87
Ledune, J.	66
Ledyayeva, E. M.	40, 41
Lefebvre, Fernand	20
Lengyel, S.	50
Lennartz, K. J.	47
Leonardelli, G. B.	45
Leonhardt, F.	65
Levchenko, V. Ya.	84
Levchuk, I.	1
Levenko, P. I.	4
Levi, L. I.	61
Levin, B. R.	57
Lewandowski, S.	75
Leykin, Ya. I.	71
Li Guo-wen,	33
Liebal, K.	19
Liebscher, Bernhard	19
Likharev, V. A.	56
Lin Ch'en,	25
Lipnitskaya, B. B.	41
Lisienko, V. G.	76
Lisitsyn, Yu. P.	11
Lisovoy, A. P.	38
Listhuber, F. E.	55
Listovnichiy, V. Ye.	82
Liu Shao-chi,	28
Livshits, L. G.	73
Lobyreva, L. B.	35
Logachev, E. D.	34
Loginova, A. Ya.	36
Loorz, W.	66
Lopatkov, V. N.	39
Loskutov, V. I.	57
Lotmar, W.	47
Lowenthal, S.	84
Lu Yun,	25
Luchanskiy, E. A.	72
Lukashev, V. N.	8
Luk'yanov, B.	1
Lupeiko, V. M.	60
Lutfi, Ali	23
L'Vov, D. K.	44
L'vov, V. P.	54
Lyon, E.	46
Lysenko, A. Ya.	36

- M -

Machidori, S.	48
Madejaki, J.	63
Magdeburov, G. N.	6
Magidson, I. A.	78
Magomayev, A. A.	39
Magula, V. C.	62
Maiskiy, V. N.	42
Majdak, Jozef	14
Makarenko, S. Ya.	40
Makarov, L. M.	70
Makeyev, D.	5
Makeyeva, A. P.	42
Maksheyev, V.	7
Maksimov, A. I.	59
Maksimov, V.	40
Malinowski, Roman	14
Malkavichus, S. K.	41
Mal'tsev, M. V.	61
Malyutenko, V. K.	83
Mammarella, L.	75
Mamonov, Ye.	78
Maneyfel', B. P.	52
Manr, Nasin	24
Marcu, Gheorghe	51
Marinello, E.	47;48
Marinkovic, Marija	49
Marjan, Badr	24
Markarov, N. I.	35
Markaryants, V. P.	12
Markov, K. K.	52
Marques, P.	45
Marshak, I. M.	61;70
Martem'yanov, A.	72
Marti, Yu. Yu.	52
Martyshevskiy, V. N.	61
Mascheck, H. J.	47
Mashkovtsov, B. M.	55
Mathe, G.	46
Matsunaga, W.	74
Matting, A.	65
Matveyev, L. T.	32
Maurer, M.	74
Maurer, W.	47
Mawet, N.	63
Mazumin, N.	10
Mel'nikov, N. V.	9;63
Mel'nikova, O. M.	40
Menke, H.	80
Meshchanchuk, P. A.	61
Meunier, G.	63
Meyer, K. H.	45
Meyer, L.	67
Mikhlin, M. Ye.	4

Mikunis, Shmuel	24
Min Hun	27
Mindlin, Ya. S.	41
Mironov, A. A.	9
Miroshnichenko, I. M.	77
Miroslavskaya, Yu. A.	73
Miusov, I. N.	38
Miyakoshi, J.	81
Mkrtycheva, L. I.	35
Modrakowski, A.	14
Mogilevskiy, N.	3
Mohan, V.	15
Monin, A. S.	72
Monin, A. Ya.	4
Mori, A.	75
Moroz, V. I.	31
Morugin, L. A.	56
Moskalenko, N. F.	39
Moshkov, B. S.	43
Movshovich, S.	3
Mukhin, A. I.	5
Mukhin, V. M.	52
Muldner, W.	85
Mundt, W.	54
Munster, A.	51;80
	86
Muratov, P.	9
Murin, V. A.	7;8
Muromova, R. S.	36
Murry, C.	63
Mursi, Fuad	24
Myakov, N.	2
Myannik, Kh.	1
Myasnikov, V. I.	36

- N -

Nabauer, Martha	55
Nabikanova, M. V.	72
Nachai, E. P.	60
Nadezhdinn, G. V.	50
Nagasawa, Nariyuki	58;86
Nagirner, D. I.	31
Nagy, F.	74
Nakagawa, H.	67
Nalimov, V. V.	70
Nalivayiko, V. I.	52
Nambu, Shigeharu	25
Naumann, Dieter	67
Naumann, F. K.	66
Nebel, R.	87
Nebylitsyn, V. D.	44
Nochayev, Yu. N.	30
Neidhard, H.	80
Neitzel, N.	65

Nekrasov, K. S.	71
Nemitz, Paul	66
Nergui, P.	26
Neshpor, V. S.	61
Nesmashnyi, P.	6
Nesterova, S. V.	61
Neudachin, V. G.	82
Neufeldt, H.	17
Neunier, G.	64
Newmann, K-H.	9
Nguyen Thi Dinh	28
Nguyen Zien	28
Nied, F.	19
Nikiforova, A. S.	44
Nikodemusz, I.	46
Nikolayev, A. S.	62
Nikolayev, A. Ya.	34
Nikolayev, V. V.	56
Nikolic, Miroslav	49
Nikol'skiy, G. V.	42
Nikolsky, G. V.	37;43
Nilov, V. N.	7
Nimr, Nasib	24
Ninkovic, Jovo	17
Nistor, Mihai	15
Nitescu, O.	15
Norman, G. E.	80
Novikov, I. I.	60
Nowakowski, L.	58
Nurideany, J.	31
Nyamaa, J.	27

- 0 -

Obering, T. H.	65
Obukhov, N. S.	4
Odess, V. I.	8
Oganesov, I. S.	9
Ohmori, M.	67
Oiks, G. N.	62
Okazaki, A.	67
Okiyama, M.	48
Olszewski, Jozed	14
Om Ho-sok	28
Oncescu, N.	55
Onodo, I.	67
Oparin, I.	74
Orlovskiy, Yu. P.	11
Ornellas, N. R.	45
Ostrovskiy, M. V.	52
Otrokov, N. F.	68
Ovchinnikov, V. V.	38
Oves, I.	70
Ovezov, B.	2
Ozhegova, V. E.	42

- P -

Pakshvey, A. B.	50
Palettes, B.	74
Palomares, M.	58
Palovics, Bela	13
Panina, G. K.	35
Panov, Yu. A.	82
Panov, Yu. L.	73
Panshin, Ye. I.	82
Papez, Ladislav	16
Papp, L.	2
Parin, V. V.	33
Parisot, J.	76
Passouant, P.	46
Patterson, W.	65
Pavlis, Julius	15
Pavlov, A.	77
Pavlov, A. V.	8
Pavlov, V.	3
Pavlov, V. I.	51
Pavlova, G. A.	53
Pawlowski, Cezary	81
Ped', E. I.	70
Pelseneer, P.	45
Pena, Santiago	29
Peng Teh-huai	26
Penta, P.	20
Perel'muter, A. S.	37
Pertseve-Ostromova, T. A.	33
Pertsov, L. A.	78
Peruanskiy, Yu. V.	38
Petipa, T. S.	35;44
Petrov, L.	4
Petrov, V. P.	76
Petrova, E. B.	43
Petrova, T. A.	36
Petrovskiy, B. V.	33
Pettersen, T.	21
Petunina, E. V.	61
Pevzner, M.	2
Pham Van Dong	28
Philips, G.	74
Philips, N. V.	63;76
Piispanen, O.	66
Piispanen, Osmo	65
Pikayev, A. K.	50
Pillar, Laszlo	13
Pinter, A.	55
Piskunov, V. A.	71
Placzek, G.	86
Plataev, A.	4
Pohl, J.	66

Poklewski, G.	66	Razu, M. L.	11
Pokrovskiy, A. A.	43	Redmond, A.	46
Polyakova, V. A.	52	Reichel, H.	65
Ponomarenko, G. P.	52	Reichelt, W.	65
Ponomareva, L. A.	35	Reinhold, Hans-Joachim	18
Popescu, O.	15	Reinmann, Horst	65
Popiuc, M.	14	Reistad, T.	68
Popov, K. V.	60	Relander, K.	64
Popov, L. V.	84	Renard, V.	77
Popov, M. V.	56;61	Repukhov, V. M.	81
	70	Reshit'ko, F.	62
Popov, Ye. G.	52	Resvanov, N.	87
Popov, Yu. V.	82	Rezanova, M. G.	78
Porkhayev, G. V.	53	Rezinikov, F.	2
Postel, E.	18	Riemann, W.	66
Postolakiy, A. I.	4	Riffaud, Madelein	28
Potapov, L. N.	54	Rinman, T.	20
Potapov, V. A.	12	Rivkin, S. L.	50
Pozdnyakov, N.	1	Rizol', A. I.	63
Pozdnyakov, V. P.	73	Rochietta, S.	48
Pravdin, V.	9	Rodin, E. M.	40
Predvoditelev, A. A.	86	Rodinov, A. I.	83
Preobrazhenskaya, T. P.	34	Roginski, R.	75
Pretescu, I.	15	Rojas, Pedro	29
Preuss, E.	87	Rojdkjaer, G.	45
Prikhod'ko, V. I.	57	Romanenko, P. N.	83
Prilezhayev, N.	50	Romanets, R.G.	83
Promyslov, V.	3	Romberg, Mikael	20
Pronyakin, Yu.	10	Rome, C.	64
Prudenskiy, G.	11	Rosaz, Ph.	74
Prussak, H.	18	Rosel, W.	18
Pshonik, I.	3	Rosiak, S.	59
Pugin, V. S.	59	Rouquerol, Francise	85
Puhl, H.	19	Ruban, E. L.	35
Pukhnachev, V. V.	84	Rublev, P. A.	32
Pupyshev, V. A.	41	Rubtsev, A. I.	41
Purde, M. K.	41	Rudakov, A. P.	49
Pyaskovskaya-Fesenkova		Rudnev, K. N.	4
E. V.	81	Rudorf, S.	18
Pychtin, Wlodzimierz	31	Rumpf, Hans	75
- Q -			
Quang Hong	27	Rybachev, S. T.	82
- R -			
Rabe, Ulrich	18	Ryyer, R.	3
Rach, P.	74	Ryzhenko, I.	57
Radlinski, Antoni	14	Ryzhov, I. S.	84
Rakhimkulov, R. Sh.	62	Rzhanov, A.	57
Rakhmanov, N. N.	69	Rzhevskiy, E. V.	86
Ramos, Ernesto Lopez	55	- S -	
Rappoport, M. A.	71	Sagel, K.	80
Razov, I. A.	69	Sager, D.	58

Salat, A.	47	Shamis, A. Ya.	35
Samokhvalova, T.	12	Shaparenko, B. A.	69
Samsonova, V. G.	35	Shapoval, V. I.	52
Sandratskaya, S. E.	35	Sharoyko, S. A.	78
Samgailene, M.	40	Shashin, V.	1
Sankowski, K.	14	Shawi, Nicola	24
Sano, Y.	67	Shcheglov, P. V.	57
Sanzharov, L. N.	11	Shcherbakov, V. A.	71
Sarkisyan, S. S.	83	Shcherbakova, L. G.	63
Sasaki, M.	48	Shebanov, V. A.	54
Saul'ev, V. K.	68	Sherman, D. I.	74
Savchuk, M. Ya.	39	Shevandin, Ye. M.	69
Savin, G. N.	82	Shevchenko, V. I.	61
Savin, N. I.	7	Shifrin-Kryzhalovskiy Yu. A.	57
Savost'yanov, V.	71	Shimizu, T.	48
Schaaber, O.	65	Shimose, T.	51
Schaarwachter, Werner	58	Shiro, S.	76
Schachter, M.	46	Shiryayev, P.	3
Schafer, W.	84	Shishakov, N. A.	50;62
Schaffer, K.	17	Shishkina, O. V.	53
Schiopirlan, Virgil	76	Shishkova, E. V.	76
Schlaug, Hans	75	Shitsman, S. Ye.	3
Schllich, R.	58	Shklenik, Ya. I.	61
Schlutter, A.	47	Shkvarikov, V.	1
Schmehl, G.	13	Shmarovoz, V. I.	3
Schmeiser, A.	46	Shol'ts, N. N.	56
Schmid, Rolf	65	Shorin, V. A.	34
Schmidt, P.	65	Shornikov, Ye. A.	56
Schmidt, Sidney	49	Shpenzer, V. I.	10
Schneeweise, Ch.	51	Shvartsman, P.	3
Schonberger, F.	68	Shvets, A. I.	82
Schottky, W.	55	Sidelkovskaya, F. P.	37
Schuck, Clemens	46	Sidel'nikov, I. I.	73
Schutz, H.	19	Sidorenko, N. S.	31
Schwerin, C.	13	Siemaszkiewicz, W.	17
Scrofani, Arazio	86	Sievers, J. F.	45
Sedenko, V.	38	Siforov, V.	77
Sedyakin, N. M.	35	Silverstrini, F.	48
Seehars, H. D.	33	Simakov, P.	57
Seemann, H. J.	64	Sinytsin, A. S.	62
Selivanov, Ye. I.	10	Sirchenko, Z. F.	69
Semakov, V. F.	15;72	Skachkov, V. P.	39
Semenenko, E.	38	Skobeleva, A. M.	62
Semenov, N. V.	71	Skopintsev, B. A.	53
Semenov, Ye. V.	86	Skorodumov, M. T.	37
Seneca, Harry	49	Skorupskiy, V.	71
Sereda, G. A.	35	Skotar, I.	71
Sergeychuk, K.	2	Skovorodnikova, E. S.	42
Sergievskiy, A. V.	59	Skripkin, Yu. K.	37
Serpinskij, V. V.	49	Skrypnik, V.	2
Seytakov, Beki	2	Slavnova, E. I.	81
Shabanov, A. N.	39;87	Slevich, S. B.	9
Shakhov, O. P.	71	Smelkov, L. L.	59
Shal'nev, K. K.	83		

Smirnov, N.	1	Taygro, V. I.	41
Smirnov, Yu. F.	82	Teclaf, H.	15
Smirnova, V. P.	70	Tekht, V. P.	60
Smozhenkov, N. V.	52	Teller, E.	86
Soboiev, I. A.	79	Temkin, M.	63
Socala, M.	17	Tenin, M. B.	57
Sochivko, A. A.	76	Teodorchik, K. F.	69
Sofroshenko, A. F.	60	Teplyakov, V.	5
Sokolkov, Ye. N.	63	Terentyev, A. V.	37;70
Sokoiov, Ye. Ya.	69	Terent'yev, V. G.	36
Solle, Horst	12	Terranova, Santi	48
Solov'ev, E. M.	62	Terskikh, I. I.	44
Soltmann, O.	46	Tevosyan, T.	57
Soltynski, A.	75	Thiele, D.	51
Sondergaard, L.	18	Thomsen, F.	44
Sonneveld, J. I.	87	Thoss, W.	18
Sorokina, Ye. I.	36	Thurmer, E.	13
Spektor, V.	70	Tikhomirov, E. A.	44
Spies, H. J.	65	Tikhov, G. A.	31
Spitsin, V. I.	79	Tishchenko, G. A.	50;73
Sprishevskiy, A. I.	70	Todorov, Stanko	12
Staats, H.	64	Tokarev, A. K.	42
Stammbach, R.	63	Tokareva, R. R.	30
Startsev, P.	1	Tolgyessy, J.	79
Stasikowski, Henrk	14	Tolle, W.	85
Steiner, F.	55	Tomasek, Ladislav	16
Stepanov, G. Yu.	76	Tombak, M. I.	84
St. Piekarczyk, Inz.	67	Tomilin, A. G.	44
Stricker, H.	46	Ten Duc Thang	28
Striganov, A. R.	83	Tonndorff, H.	16
Strobel, D.	74	Topfer, K.	19
Strommer, E.	23	Toppich, E.	47
Stroyev, S. S.	37	Toure, Mamouna	23
Strutinskiy, V. M.	78	Tran Ham Luong	26
Sudnov, P.	42	Tran Phuong	26
Sukharov, V. M.	41	Tran Trong Hy	26
Sventitskiy, N. S.	83	Tregubov, N. N.	30
Syromiatnikova, M. G.	40	Trifonov, D. N.	78
Szekulesz, Istvan	13	Trofimov, V. P.	38
Szowa, M.	14	Tronstad, L.	86
Szucs, J.	14	Troost, A.	64
Szukalski, B.	49	Troppens, D.	58

- T -

Tadic, Dobrosav	15	Troyano, Hector	29
Taguchi, K.	48	Trubnikov, Yu. A.	71
Takamura, A.	51	Truong Minh	26
Takeuchi, M	48;49	Trusfus, V. M.	58
Tamaki, T	49	Trusov, I. I.	32
T'ao Shih-yen	33	Truyens, T.	74
Taran, Jean-Pierre	84	Tsedebsuren, B.	26
Taube, Mechislav	78	Tsuchiya, Raizo	25
		Tsuda, Yoshitaro	25
		Tsurikova, A. P.	53

Tsybushnik, M. B.	71	Vom Ende, H.	66		
Tu, Chung-tse	84	Von Arx, E.	45		
Tulinov, V. F.	32	Vorob'ev, I. P.	6		
Tumanov, Yu. K.	73	Vorob'yev, Ye. A.	56		
Tuvdendorzh, D.	32	Voronkov, L. D.	72		
Tyagun-Belous, G. S.	60	Vorontsova, A. S.	35		
Tyszkiewicz, A. P.	14	Vorotnikova, M. I.	81		
Tyutnev, K.	1	Voskresenskiy, V. V.	56		
- U -					
Uchimura, K.	51;80	Voyachek, V. I.	43		
Ugarov, V. A.	83	Vu Duc Yen	76		
Undintseva, V. S.	49	Vu Oanh	28		
Unyi, B.	13	Vysotskiy, B. F.	77		
Utenkov, B. I.	82	- W -			
- V -					
Vaganov, R. D.	70	Wachsmann, Felix	47		
Vagramyan, A. T.	83	Wahlster, M.	65		
Vakman, D. Ye.	77	Wallner, A.	55		
Valchar, Lubomir	16	Wartak, J.	49		
Valente, Antunes	23	Wasylkowski, Janusz	14		
Valentino, L.	48	Weber, H.	45		
Valette, Guillaume	45	Weeser, A.	19		
Vanyushin, B. F.	37	Wichmann, P.	19		
Varfolomeyeva, A. A.	44	Wilenska, Esther	24		
Varshevskiy, I.	74	Wilkening, H.	64		
Vasil'yev, B.	9	Willikens, D.	16		
Vasmut, S. S.	52	Winzer, D.	66		
Veith, P.	58	Wisniewski, F.	59		
Veksler, V. M.	73	Wlaifoff, W.	18		
Ventsel, T. D.	69	Wolf, H.	54		
Verezgunov, V. G.	79	Wolinski, W.	86		
Verigin, N. N.	79	Wostenfeld, D.	19		
Vertman, A. A.	63	Wu Lan Fu	27		
Veynberg, B. S.	4	Wulffsberg, B.	18		
Vil'ner, D. G.	56	- Y -			
Vinnichenko, N. K.	32	Yablochkiu, V. D.	36		
Vinogradov, S. V.	50	Yakomazova, G. K.	49		
Viratelle, Gerard	22	Yakovlev, B. A.	33		
Vladimirova, V. I.	49	Yakovlev, V. N.	54		
Vladimirskaya, V. V.	12	Yamaguchi, M.	67		
Vladimirskaya, Ye. V.	53	Yamana, M.	30		
Vladov, Dimo	12	Yana, T.	75		
Vlasic, Blagoje	75	Yao, Ch'i	58		
Voitkevich, A. A.	35	Yaroslavtseva, L. D.	38		
Volchkov, E. P.	84	Yefimov, A.	1		
Volkov, M. V.	33	Yelimov, N. P.	37		
Volkova, F. E.	30	Yemelianov, D. S.	54		
Volkovinskiy, B. V.	53	Yeni, Murid	23		
Volovik, S. P.	39	Yeremenko, V. N.	82		
		Yoshide, Y.	75		
		Yoshinaga, Y.	67		

Yun Nae Kil	27
Yurikov, P. A.	57
Yurkov, I.	3

- Z -

Zabiyakin, G. I.	57
Zahorski, Ryszard	14
Zaikin, I. D.	84
Zaitsev, V. I.	69
Zakharov, S. I.	79
Zakharova, K. P.	79
Zakharova, L. A.	7
Zalenka, J.	58
Zalepa, V. A.	10
Zamfirescu, V.	14
Zapesochny, I. P.	79
Zelenin, A. V.	30
Zernov, Ye. V.	62
Zesewitz, Helmut	18
Zharov, V.	3
Zherebenkov, Yu.	3
Zherzherunov, S. I.	59
Zhiglevich, B. A.	69
Zhilin, V. M.	30
Zhirnyy, A.	3
Zhukov, L. A.	53
Zhukov-Berezhnikov, N.	41
Zimakov, P. V.	79
Zinoveva, Kh. G.	30
Zlotin, V. V.	77
Zubelite, D.	41
Zukowski, B.	14
Zurbriggen, G.	51
Zusser, S. G.	40
Zvarich, Z. V.	50
Zybaloca, G.	3
Zykov, V. G.	81
Zyryanov, P. S.	85

\* \* \*

UNCLASSIFIED  
Central Intelligence Agency



Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen  
Deputy Director for Operations  
Defense Technical Information Center  
7725 John J. Kingman Road  
Suite 0944  
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in black ink that appears to read "Nancy J. Alcivar" or "Sergio N. Alcivar".

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral  
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

UNCLASSIFIED

**ENCLOSURE I****Processing of OGA-Held CIA Documents**

**The following CIA documents located at DTIC were reviewed  
by CIA and declassification guidance has been provided.**

OGA Doc ID	Job Num	Box	Flat Doc	Doc ID	Document Title	Pub Date	Page	Decision	Proc Date	
AD0482732	78-03109A	56	1	5	100	Consolidated Translation Survey For April 1966	4/1/1966	203	Approved For Release	3/25/2004
AD0485874	78-03109A	56	1	6	101	Consolidated Translation Survey For May 1966	5/1/1966	250	Approved For Release	3/25/2004
AD0486759	78-03109A	56	1	7	102	Consolidated Translation Survey For June 1966	6/1/1966	265	Approved For Release	3/25/2004
AD0488131	78-03109A	56	1	8	103	Consolidated Translation Survey For July 1966	7/1/1966	178	Approved For Release	3/25/2004
AD0800235	78-03109A	57	1	1	104	Consolidated Translation Survey For August 1966	8/1/1966	264	Approved For Release	3/25/2004
AD0801439	78-03109A	57	1	2	105	Consolidated Translation Survey For September 1966	9/1/1966	211	Approved For Release	3/25/2004
AD0803607	78-03109A	57	1	3	106	Consolidated Translation Survey For October 1966	10/1/1966	247	Approved For Release	3/25/2004
AD0804982	78-03109A	57	1	4	107	Consolidated Translation Survey For November 1966	11/1/1966	203	Approved For Release	3/25/2004
AD0806465	78-03109A	57	1	5	108	Consolidated Translation Survey For December 1966	12/1/1966	234	Approved For Release	3/25/2004
AD0807740	78-03109A	57	1	6	109	Consolidated Translation Survey For January 1967	1/1/1967	277	Approved For Release	3/25/2004
AD0811456	78-03109A	57	1	7	110	Consolidated Translation Survey For February 1967	2/1/1967	234	Approved For Release	3/25/2004
AD0813563	78-03109A	57	1	8	111	Consolidated Translation Survey For March 1967	3/1/1967	342	Approved For Release	3/25/2004
AD0814969	78-03109A	57	1	9	112	Consolidated Translation Survey For April 1967	4/1/1967	268	Approved For Release	3/25/2004
AD0816126	78-03109A	58	1	1	113	Consolidated Translation Survey Through 31 May 1967	5/31/1967	210	Approved For Release	3/25/2004
AD0818406	78-03109A	58	1	2	114	Consolidated Translation Survey Through 30 June 1967	6/30/1967	271	Approved For Release	3/25/2004
AD0834366	78-03109A	58	1	3	115	Consolidated Translation Survey Through 31 July 1967	7/31/1967	318	Approved For Release	3/25/2004
AD0820905	78-03109A	58	1	4	116	Consolidated Translation Survey Through 31 August 1967	8/31/1967	308	Approved For Release	3/25/2004
AD0822924	78-03109A	58	1	5	117	Consolidated Translation Survey Through 30 September 1967	9/30/1967	330	Approved For Release	3/25/2004
AD0824430	78-03109A	58	1	6	118	Consolidated Translation Survey Through 31 October 1967	10/31/1967	200	Approved For Release	3/25/2004
AD0824515	78-03109A	58	1	9	121	Consolidated Translation Survey Through 31 January 1968	1/31/1968	221	Approved For Release	3/25/2004
AD0824581	78-03109A	58	1	7	119	Consolidated Translation Survey Through 30 November 1967	11/30/1967	194	Approved For Release	3/25/2004
AD0829939	78-03109A	59	1	1	122	Consolidated Translation Survey Through 29 February 1968	2/29/1968	246	Approved For Release	3/25/2004